Capital Planning Initiative

Final Report

March 2000

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Capital Planning Initiative

Final Report

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EXECUTIVE SUMMARY

Background

There are increasing demands for provincial funding of major physical infrastructure (roads, buildings, dams, etc.) as a result of aging facilities and growth pressures. The common issues of aging infrastructure and growth pressures might suggest the simple solution of spending more on infrastructure. However, any amount of investment has to be prudent, targeted to the highest priority needs, and consistent with the government's fiscal objectives. Spending must be based on what is affordable over the longer term, not just during peaks in revenue cycles. In addition to increased demands for infrastructure, Ministries and their partners indicate that current budget policies and practices create constraints to effective multi-year infrastructure initiatives.

The Capital Investment Planning Committee (CIPC) was a committee of MLAs and private sector representatives formed in November, 1997 to recommend a provincial capital planning strategy to address these problems. Their recommended strategy included:

- Improved collection and presentation of data relative to physical infrastructure to facilitate more informed planning and priority setting,
- An improved budgetary framework for managing multi-year projects,
- Effective management of infrastructure using the private sector where appropriate, and
- Divesting infrastructure that is no longer required for government purposes.

Government accepted the recommendations of the CIPC and set out the following goal in the 1999-2002 Business Plan:

"Implement initiatives to ensure effective, innovative capital planning and funding decisions."

Goals

The following strategies were identified in the 1999-2002 Government Business Plan to address the overall goal of the Capital Planning Initiative. The targets and performance indicators relate to specific recommendations in the CIPC report. These strategies have been actioned on a cross-government basis under the direction of the Deputy Ministers of Infrastructure and Treasury.

Strategy	Target/ Performance Indicators	99-00 Results
1. Provide an annual **Corporate Capital Overview** to government to facilitate planning and priority setting on physical infrastructure programs and information technology.	1a. Deliver overview of programs for physical infrastructure in spring, 1999; update in fall, 1999.	**Target Achieved** ❑ The Corporate Capital Overview (Strategy 1 Report) was prepared in the spring and presented to Treasury Board on July 14. It summarized current infrastructure responsibilities, planned spending, key business drivers and additional funding proposals. ❑ The fall Corporate Capital Overview was developed as part of the business planning/ budgeting process. ❑ The Overview is being used to support the business planning/budgeting process by identifying and comparing infrastructure needs. ❑ Incremental infrastructure funding of $600 million was made available in 1999-00. Of this amount, $425 million was designated for transportation infrastructure; $175 million was allocated for other infrastructure.
	1b. Include chapter on information technology.	**Target Achieved** ❑ The first Corporate Information Technology Overview was presented to Treasury Board in August, 1999 (Strategy 1 Report). It summarized approved 1999-2002 IT plans, business drivers and initiatives, and recommended joint initiatives among departments. Treasury Board approved the recommendations.

Strategy	Target/ Performance Indicators	99-00 Results
		❑ An update of the Corporate IT Overview was presented to Treasury Board in November, 1999. It summarized the proposed 2000-2003 business plans and provided an update on joint initiatives. ❑ A number of joint initiatives are underway to leverage IT investments, enhance information sharing (avoid duplication), and improve service, including: ▪ One-window service delivery ▪ Cross-government standards ▪ Network expansion ▪ Electronic commerce ▪ Shared IT services ▪ Corporate IT strategic plan
2. Review **budgeting policies and practices** for multi-year infrastructure programs and projects.	2. Prepare report on issues and options for multi-year infrastructure budgeting by December 31, 1999.	**Target Achieved** ❑ Budgeting policies and practices, and options to address the issues were reviewed and a report analyzing the options was prepared. (Strategy 2 Report). Changes within the existing policy and legislative framework have been implemented to increase flexibility, including the following: ▪ Operating and capital votes were combined after 1998-99, enhancing ministries' flexibility to manage infrastructure funding. ▪ The 1999-00 fiscal plan includes an economic cushion to protect against revenue volatility and unplanned expenses. A portion has been made available for incremental spending on infrastructure.

Strategy	Target/ Performance Indicators	99-00 Results
		▪ As part of the Government reorganization, most infrastructure programs were consolidated in one ministry. (Infrastructure) This is helping to focus priority setting and facilitate adjustments between infrastructure programs to adapt to changing circumstances (e.g. weather conditions, other construction factors).
3. Improve planning and priority setting by implementing effective, independently verifiable **infrastructure management systems** (IMS) within ministries, and by jointly developing common key performance measures.	3a. ❑ Identify components of an effective independently verifiable infrastructure management system (IMS).	**Target Achieved** ❑ Guidelines for IMS were developed (Strategy 3 Report). ❑ Some demonstrations of leading edge IMS systems have been made to government departments and other stakeholders.
	❑ Ensure 50% of ministries have such systems in place or in development by year end.	**Target Achieved** ❑ 75% of ministries with responsibility for infrastructure have systems that are in place or in development.
	❑ Use systems to support 75% of spending on owned infrastructure, 30% of spending on supported infrastructure by year end.	**Target Achieved** ❑ IMS systems currently support 80% of spending on owned infrastructure and 30% of spending on supported infrastructure (Strategy 3 Report).
	3b. ❑ Identify common key performance measures by September 30, 1999.	**Target Achieved** ❑ Key measures (Strategy 3 Report) have been developed for: ▪ condition ▪ utilization ▪ functionality
	❑ Develop 75% by year end for inclusion in Overview in spring, 2000.	❑ Baseline data has been collected for more than 75% of the owned infrastructure (Strategy 3 Report).

Strategy	Target/ Performance Indicators	99-00 Results
		❑ Data for the following short-term measures is also available: ▪ Progress in implementing infrastructure management systems. ▪ Success in disposing of surplus inventory of physical infrastructure.
	3c. Develop a strategy for review and co-ordination of government-wide infrastructure management systems.	**Target Achieved** ❑ A strategy has been developed that should ensure that systems are developed in a common framework (Strategy 3 Report).
4. Ensure effective, innovative management of physical infrastructure.	4a. Develop a framework for assessing **private sector provision** by June 30, 1999.	**Target Achieved** ❑ Framework for private sector provision (Strategy 4 Report) and divestiture (Strategy 4 Report) has been developed. ❑ A public-private partnership model has been developed for buildings occupied by government ministries, based on experience in constructing a specialized facility, using a public-private partnership. The model may be used for future Alberta Infrastructure building projects that meet necessary criteria. ❑ Models for private sector provision of supported infrastructure are being tested and reviewed for suitability. ❑ The financing for a highway interchange is being structured as a public-private partnership. ❑ The private sector was invited to make a presentation to senior government officials and a Standing Policy Committee about practical issues relating to public-private partnerships.

Strategy	Target/ Performance Indicators	99-00 Results
		❑ Several health authorities have developed partnerships with private and voluntary sector organizations for the construction and operation of long-term care facilities. ❑ A task group has been formed to assist school boards with the structuring of public-private partnerships for the construction and utilization of school facilities.
	4b. Develop a framework for assessing **divestitures/ alternate uses** by June 30, 1999.	**Target Achieved** ❑ Infrastructure Ministry established a task force to dispose of $100 million of surplus property over the next 3 years.
	4c. Ministries to include initiatives in 2000-2003 business plans.	❑ Proceeds from disposal will be used as a source of infrastructure funding.

Next Steps

In order to realize the benefits of the work completed through this initiative, the following initiatives will be continued in 2000-2001.

Strategy 1

Support funding decisions with a **long-term capital plan** for both government-**owned and supported** infrastructure.

Targets

- Semi-annual Corporate Capital Overview to include a **5 year plan** for owned and supported infrastructure to be submitted to Treasury Board by June 30 and November 30.
- Monitor effectiveness of changes to **budget policies and practices** and identify any problems that arise. Propose potential solutions to identified problems in the November 30 Corporate Capital Overview.

Strategy 2

Implement effective, independently verifiable infrastructure management systems (IMS) and common key performance measures for owned infrastructure to improve planning and priority setting.

Targets

- Over 85 per cent of owned infrastructure to be supported by a substantially developed IMS by March 31, 2001.
- Establish baseline data for three measures for each category of owned infrastructure by March 31, 2001.
- Initiate the implementation of the strategy for developing common infrastructure management systems for each category of owned infrastructure by March 31, 2001.

Strategy 3

Develop a strategy for design and implementation of an IMS for supported infrastructure.

Targets

- Identify current IMS systems that exist for supported infrastructure by March 31, 2001.
- Develop and initiate implementation of a strategy for collection of baseline data for supported infrastructure by December 31, 2000.

Strategy 4

Ensure effective, innovative management of physical infrastructure.

Targets

Private Sector Provision of Infrastructure

- Identify opportunities for, and encourage, private sector provision of physical infrastructure and related services where necessary criteria are met.

Strategy 5

Divest properties that are no longer required for government programs.

Targets

- $35 million of surplus properties are sold at fair market value by March 31, 2001.

Conclusion

The targets for 1999-2000 set out in the Government Business Plan have been achieved. As a result of these initiatives, the information base for decision-making with respect to physical infrastructure has been significantly improved. This base of information will assist government to set priorities to ensure that:

- existing infrastructure is adequately maintained,
- new projects are cost-justified,
- surplus properties are identified and transferred, shared or sold; and
- the private sector is increasingly involved in operating, maintaining, financing, procuring and building infrastructure, where necessary criteria are met.

Ministries will continue to work together to improve planning and priority setting for physical infrastructure projects resulting in effective use of available dollars. The more efficient and effective government processes that result from the Capital Planning Initiative will be of long-term benefit to Albertans.

Team Members

Capital Planning Committee
Tom Thurber, M.L.A., Chair
Gary Severtson, M.L.A.
Peter Kruselnicki, Deputy Provincial Treasurer
Ed McLellan, Deputy Minister, Infrastructure
Julian Nowicki, Deputy Minister, Executive Council

Working Committee
Jay Ramotar, Chair, Infrastructure (formerly Transportation and Utilities)
Alec Waters, Infrastructure (formerly Transportation and Utilities)
Hoang Le, Infrastructure (formerly Education)
Malcolm Johnson, Infrastructure (formerly Public Works, Supply and Services)
Larry James, Infrastructure (formerly Public Works, Supply and Services)
Archie Clark, Learning (formerly Alberta Advanced Education and Career Development)
Phil Gougeon, Learning (formerly Alberta Advanced Education and Career Development)
Ron Dyck, Health and Wellness
June MacGregor, Health and Wellness
Ann Hammond, Treasury
Brian Colgan, Agriculture, Food and Rural Development
Bob Sharp, Environment
Bill Byrne, Community Development
Keray Henke, Municipal Affairs
Duane Pyear, Economic Development

Strategy Reports

Attached are the referenced reports for the following strategies:

Strategy 1
- Corporate Capital Overview – Summary
- Corporate Information Technology Overview – Summary

Strategy 2 Multi-Year Budgeting

Strategy 3
- Infrastructure Management Systems – Guidelines
- Performance Measures
- Infrastructure Management Systems Strategy

Strategy 4
- Private Sector Provision of Physical Infrastructure
- Alternate Uses and Divestitures of Physical Infrastructure

Strategy 1

Corporate Capital Overview
and
Corporate Information Technology (IT) Overview

January, 2000

CORPORATE CAPITAL OVERVIEW – SUMMARY

Purpose

To enhance funding decisions for owned and supported infrastructure by providing government decision makers with an integrated view of planned and proposed funding at the beginning and end of the annual budget/business planning process in a context of related background, performance measurement and other relevant information.

Process

- A request for information was developed in coordination with the Capital Planning Working Committee in the Spring and Fall
- The requested information was provided by ministries responsible for the various owned and supported infrastructure programs as part of the budgetary submissions to Treasury
- Treasury prepared a draft report for review and comment by the Capital Planning Working Committee
- Final reports were provided to decision-makers at the beginning and end of the annual budget/business plan cycle
- The reports cover all years included in the business plans as well as certain future looking information.

Results

- Overviews were presented to decision-makers in Spring and Fall 1999 that summarized current infrastructure responsibilities, planned spending, key business drivers, possible consequences of differing funding levels and additional funding proposals
- The Overviews were used to support the business planning/budgeting process by identifying and comparing infrastructure needs
- Incremental infrastructure funding of $600 million was made available in 1999-2000. Of this amount, $425 million was designated for transportation infrastructure; $175 million was allocated for other infrastructure

Next Steps

- Continue to provide Corporate Capital Overviews to decision makers at the beginning and end of the budget/business planning cycle
- Continue to improve the quality of information included in the Overviews in conjunction with the other strategies of the Capital Planning Initiative

CORPORATE INFORMATION TECHNOLOGY (IT) OVERVIEW - SUMMARY

Purpose

To enhance government strategic and funding decisions on information technology by providing decisions makers with an integrated view of departmental IT plans.

The preparation of a Corporate IT Overview was recommended in the Corporate Capital Overview and approved by government. The first IT Overview was presented in the summer of 1999, based on existing departmental three-year plans; an update was presented in the fall of 1999, based on departmental IT plans proposed for the upcoming three years.

Process

- The Corporate IT Overview was prepared under the guidance of the Minister of Innovation and Science (I & S), the Deputy Minister of I & S and the government's Chief Information Officer.

- The Chief Information Officers' (CIOs) Council has served as the working committee for the overview's preparation:
  - information was gathered through a questionnaire completed by all departments, and through the assessment of departmental IT plans. Staff of I & S prepared the draft IT overview.

Results

- The Corporate IT Overview provided decision makers with a range of information across departments: amount and purpose of IT spending; selected benchmarks; assessment of the status of IT planning; major IT projects; IT business drivers, challenges and opportunities

- The IT Overview resulted in government approval of a number of initiatives for departments to work together in order to leverage IT spending, enhance information sharing and improve service. These initiatives are now underway, including one-window service delivery, cross-government standards, network expansion, electronic commerce, shared IT services and corporate IT strategic planning.

Next Steps

- The IT Overview will be updated as IT plans evolve.

Strategy 2

Multi-Year Budgeting

December, 1999

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1. INTRODUCTION

Purpose of Multi-Year Budgeting and Practices Strategy

The Alberta Government 1999-2002 Business Plan identified Capital Planning as one of four key cross-government initiatives with the following overall goal:

"Implement initiatives to ensure effective, innovative capital planning and funding decisions."

Following are specific goals to achieve the overall goal:

- Alberta will have effective and efficient infrastructure, and
- Alberta will have a financially stable, open and accountable government.

The purpose of the Multi-Year Budgeting Policies and Practices Strategy is:

"To review budget policies and practices for multi-year infrastructure programs and projects."

Detailed Terms of Reference are included as Appendix 1.

Process

The sub-committee used the following process in conducting its review:

- Discussion and identification of issues
- Discussion and identification of options
- Development of a workplan
- Review of related practices in other jurisdictions
- Distribution of interim report for review and comments
- Analysis and assessment of options
- Distribution of draft report for review and comments
- Review and acceptance of the final draft by the working committee.

2. ISSUE AND RECOMMENDATIONS

Issue

Infrastructure budgets are developed to preserve and expand the government's 'owned' infrastructure (e.g. primary and secondary highways, water management facilities) and 'supported' infrastructure (e.g. learning facilities, health facilities, local roads). Budgeted funds, including those related to multi-year infrastructure projects, are reflected in each year of the government's three-year fiscal plan.

While the three-year fiscal plan provides greater funding certainty than annual budgets alone, under parliamentary tradition, the authority to spend funds is provided (i.e. voted) on an annual basis by the Legislature for each ministry. At the end of the year, the authority to spend unused funds lapses and cannot be carried forward to the next year.

Construction projects can be delayed or accelerated because of weather, availability of resources, or a variety of other factors that are often beyond the direct control of the project manager. If spending authority lapses or funds are reallocated because of construction delays, the overall funds available for projects are reduced unless replacement funds are provided through future years' budgets. If construction is accelerated because of favorable weather or building conditions, the ministry must either reallocate funds from other projects in the ministry, or apply for a supplementary estimate (i.e. incremental spending authority).

In recent years, incremental spending authority has been made available for infrastructure projects during the year after quarterly results have indicated a favorable fiscal situation for the government. While this has reduced some pressures that were not addressed by annual budgets, the availability of incremental authority has not usually been known until the construction season for most owned infrastructure is coming to a close. The incremental authority does, however, enable funds to be advanced to partners in the current year for supported infrastructure projects that will be in progress in future construction seasons. This is not an option for roads and water infrastructure that are owned by the government.

This inability to carry-over spending authority from one year to the next has been identified as a hurdle to the management of owned infrastructure.

Fiscal Considerations

The Government of Alberta is recognized as a world leader for its fiscal management strategy which includes the use of consolidated budgeting and reporting; use of three-year business plans and performance measures; legislated limitations on spending; and legislated requirements for debt reduction.

The Fiscal Responsibility Act requires the government's consolidated revenues to exceed consolidated expenditures annually (i.e. no deficits) and the achievement of specified 5-year debt reduction targets as well as quarterly and annual reporting against plan. The fiscal consolidation includes all revenues and expenditures over which the government has direct control. Expenditures include the costs of preserving and expanding owned and supported infrastructure (i.e., pay-as-you-go basis for infrastructure).

The volatility of the Alberta government's consolidated revenues creates a particular challenge for ensuring that a deficit does not occur. Therefore, the government has adopted budgeting policies and practices that ensure revenues exceed expenditures annually and limits discretionary expenditures until revenues are certain.

Recommendation

Recent organizational and budgeting changes should be evaluated over the next 3 years to assess their impact on the management of construction programs. If organizational and budgeting changes are evaluated to be insufficient to resolve multi-year project management problems, the balance between management flexibility and fiscal policies should be reassessed.

Explanation
Two significant organizational and budgeting changes were made recently that should enhance management of multi-year infrastructure within the existing legislative and policy framework. These changes are:

- Operating and capital votes have been combined, which allows reallocations between operating and capital programs and between owned and supported infrastructure programs within a ministry.
- Most infrastructure programs have been amalgamated in the Infrastructure ministry. This increases the scope for reallocating resources between a range of capital projects to adapt to changing circumstances and as required for effective and efficient management.

Reallocating available funding within a ministry or requesting a supplementary estimate should accommodate changes required in infrastructure spending during a year. Conditional grant programs and increased cross-government co-operation should also assist in addressing capital funding pressures arising from lapsed funding.

Any of the other assessed alternatives for multi-year budgeting would either compromise the government's fiscal strategy or create new constraints, such as multiple votes, that would reduce management flexibility.

No specific implementation steps are necessary since this alternative maximizes the flexibility already available within the government's management framework.

Alternatives Considered

The following alternatives were evaluated. All identified alternatives, except 'Capitalize Assets', provide greater opportunities to have lapsed funding available in future years than the current situation. Details of the analysis of each alternative are included in the referenced appendix. Information about practices in other jurisdictions is included in Appendix 3.

Type of Option	Alternative	Ref.	Reason for Recommending/Not Recommending
Opportunities within annual authority and existing fiscal policies		**Att. 1 Sec. 2.0**	**Recommended.** Capital planning, use of the contingency reserve and use of conditional grants and public-private partnerships, can minimize issues associated with lapsed funding.
Extend spending authority beyond one year	Remove lapsing provision. Ministries could spend unused authority in the next fiscal year.	**Att. 1 Sec. 2.1**	**Not recommended.** Although this mechanism could provide on-going authority for ministries to spend funds on capital projects: ❑ it may result in government expenditures exceeding revenues in a fiscal year, ❑ it may require multiple votes in departments, which would reduce management's flexibility, ❑ it would reduce accountability, ❑ changes to the Financial Administration Act would be required.
	Multi-year Appropriations. Funds for capital programs could be voted for more than one year at a time.	**Att. 1 Sec. 2.2**	**Not recommended.** This mechanism could provide on-going authority for ministries and could enable a longer term commitment to supported organizations. However, ❑ it may result in government expenditures exceeding revenues in a fiscal year; ❑ it may require multiple votes in departments which would reduce management's flexibility; and ❑ it would reduce accountability and fiscal flexibility.

Type of Option	Alternative	Ref.	Reason for Recommending/Not Recommending
Change the existing fiscal policies	Establishing an Infrastructure Fund which is outside the government reporting entity.	**Att. 1 Sec. 2.3**	**Not recommended.** This mechanism could provide funding which is not constrained by the government's fiscal policies and could enable a longer term commitment to supported organizations. Funds **could not be used for owned infrastructure projects** since these would still be subject to the Fiscal Responsibility Act, i.e. Revenues must exceed expenditures for the year. In addition, it may result in: ❑ reduced government accountability; ❑ less responsiveness to changing government priorities; and ❑ more complexity in the planning and coordination of infrastructure delivery.
	Use of net assets. Allow expenditures to exceed revenues in some circumstances.	**Att. 1 Sec. 2.4**	**Not recommended.** March 31, 2000 is expected to be the first year-end since March 31, 1987 when the government will be in a net asset position. A period of increasing net assets may be required before the government and Albertans are comfortable with an occasional deficit.
	Capitalize assets. Record only the amortization and any gains or losses on disposal annually.	**Att. 1 Sec. 2.5**	**Not recommended.** This accounting policy change may not provide ministries with access to lapsed funds and would add more complexity to the accounting and budgeting of owned infrastructure.

A chart comparing the various alternatives is included in Attachment 1.

1.0 COMPARISON OF OPTIONS AGAINST THE STATUS QUO

Based on the research in Appendix 3 and analysis and discussion outlined in each section of this Attachment, the identified options were compared to various aspects of current fiscal management requirements and budget policies and practices. An overview of this comparison is provided in Table 1. The Table indicates whether an option would increase/decrease capabilities to perform certain key management functions.

All options show some increased capabilities from the current situation. The increased capabilities are generally in the areas of:

- Lapsed funds available in future years
- Explicit long term commitments
- One funding decision
- Applicable through-out the asset's life cycle
- Applicable to owned infrastructure
- Incentives for improved life cycle planning and management

However, for all options but the **Opportunities within Existing Policies**, the increases in capabilities to perform some key management functions are offset by decreased capabilities to perform others. The decreased capabilities noted for most of the other alternatives are:

- Compliance with current legislation
- Accountability
- Government and ministry flexibility
- Better information for decision making
- Incentives for cost savings, cross-government and intra-ministry cooperation

The **Opportunities within Existing Policies** option was assessed as having:

- The most increased capabilities over the current situation
- No identified reduction in management capabilities
- Little or no change for legislative compliance, accountability or explicit long term commitment

The **Continued Spending Authority** option was assessed as having:

- Low increased capabilities and the most decreased capabilities over the current situation
- Little variation in assessment was noted between the identified alternatives

- The key noted differences were that the Multi-year Votes alternative was considered to increase the explicit long term commitment and one funding decision while no change from the current situation was noted for the Remove Lapsing alternative

The **Change Fiscal Policies** option was assessed as having:

- Less decreased capabilities over the current situation than the Continued Spending Authority option and generally more increased capabilities
- More variation in assessment between alternatives than the other options
- Government and ministry flexibility increase under the Use Net Assets alternative and decrease under both the External Fund and Capitalize Assets alternatives
- Government and ministry flexibility increase for the Use Net Assets alternative as the key difference between this alternative and the Continued Spending Authority option

Key Implementation Considerations

For each option under review, the key considerations required for implementation were identified and compared. Table 2 provides an overview of the comparison. The Table indicates whether a particular step needs to be considered before an option can be implemented.

Overall, the **Opportunities within Existing Policies** option could proceed to implementation within existing policies and practices – no key implementation step needs to be considered. All other options require consideration of changes to ministry policies and/or practices as well as at least two other factors before implementation can begin.

Alternatives within the **Continued Spending Authority** option also require consideration of changes to government policy and budget practices and legislation/regulations. It is therefore expected that implementation would take longer than 2 years for either alternative. In addition, the Multi-year Votes alternative would require changes to the government's reporting policies.

The Use Net Assets alternative under the **Change Fiscal Policies** option would need to consider all the same factors as the Remove Lapsing alternative under the **Continued Spending Authority** option other than changes to ministry policy/practices. Therefore, a lengthy implementation would be expected for this alternative as well. However, since legislative and budget practice changes would not be anticipated for either the External Fund or Capitalize Assets alternatives implementation could occur within two years. Implementation of an External Fund could be delayed if extensive changes to ministry monitoring practices or lengthy external stakeholder consultation were required.

Table 1 – Comparison of Options against the Status Quo

Option ⇒ / Criteria ⇓	Within Existing Policies	Continued Spending Authority		Change Fiscal Policies		
		Remove Lapsing	Multi-year Votes	External Fund	Use Net Assets	Capitalize Assets
Does this option change the capabilities to:						
Have Lapsed Funds Available in Future Years	⇑	⇑	⇑	⇑	⇑	⇔
Comply with Current Legislation	⇔	⇓	⇓	⇔	⇓	⇔
Be Accountability	⇔	⇓	⇓	⇓	⇔	⇓
Have Government Flexibility	⇑	⇓	⇓	⇓	⇑	⇓
Have Ministry Flexibility	⇑	⇓	⇓	⇓	⇑	⇓
Make Explicit Long Term Commitment	⇔	⇔	⇑	⇑	⇑	⇑
Make One Funding Decision	⇑	⇔	⇑	⇑	⇔	⇑
Be Applicable throughout Life Cycle	⇑	⇔	⇔	⇑	⇑	⇑
Have Better Information for Decision Making	⇑	⇓	⇓	⇔	⇔	⇓
Applicable to:						
Owned	⇑	⇑	⇑	⇔	⇑	⇔
Supported	⇑	⇔	⇔	⇑	⇑	⇔
Does this Option Provide Incentives for:						
Cost Savings	⇑	⇓	⇓	⇓	⇓	⇔
Improved Life Cycle Management.	⇑	⇑	⇑	⇑	⇑	⇔
Improved Life Cycle Planning	⇑	⇑	⇑	⇑	⇑	⇔
Cross Government Cooperation	⇑	⇓	⇓	⇓	⇓	⇓
Intra-ministry Cooperation	⇑	⇓	⇓	⇓	⇓	⇓
Summary						
Total ⇑	13	4	6	7	9	3
Total ⇔	3	4	2	3	3	7
Total ⇓	0	8	8	6	4	6

The symbols used represent:

⇑ An increased capability from the current situation

⇔ Little or no change from the current situation

⇓ A decreased capability from the current situation

Table 2 – Comparison of Key Implementation Considerations

Option ⇒ / Consideration ⇓	Within Existing Policies	Continued Spending Authority		Change Fiscal Policies		
		Remove Lapsing	Multi-year Votes	External Fund	Use Net Assets	Capitalize Assets
Could this option be implemented without:						
Changing Government Policy	✔	×	×	✔	×	×
Changing Legislation/ Regulations	✔	×	×	✔	×	✔
Changing Government Budget Practices	✔	×	×	✔	×	✔
Changing Government Reporting Practices	✔	✔	×	✔	✔	×
Changing Ministry Policy / Practices	✔	×	×	×	✔	×
Changing Ministry Monitoring Practices	✔	✔	✔	×	✔	✔
Consulting with External Stakeholders	✔	✔	✔	×	✔	✔
A Lengthy Implementation (greater than 2 years)	✔	×	×	✔	×	✔
Summary **Total** ✔	8	3	2	5	4	5
Total ×	0	5	6	3	4	3

The symbols used represent:

✔ this option could be implemented without considering this item
× this option **could not** be implemented before this item is considered

Conclusions

Both the comparison to the current situation and the review of the implementation considerations indicate that the **Opportunities within Existing Policies** has many advantages over the other identified options. In addition to availability of lapsed funding in future years, these advantages include greater flexibility, better information for decision making, and incentives for greater cooperation and cost savings. No decreased capabilities from the current situation were noted for this option. However, it is weaker than some other options in its provision of an explicit long-term funding commitment to stakeholders.

Other alternatives provide an explicit long-term funding commitment. However, these alternatives generally reduce government and ministry flexibility (e.g., return to multiple votes per department), accountability (e.g., complicates public reporting), and incentives for cost savings and cooperation both within the ministry and across government. The advantage of an explicit long term funding commitment is not considered to offset these disadvantages.

Changing current fiscal management legislation could provide the framework to allow continued spending authority or the use of net assets. However, these changes are not considered viable at this time since they would be contrary to the concept of open and accountable government. These changes may also result in reduced government and ministry flexibility and reduced incentives for cost savings, and cross-government and intra-ministry cooperation. Since lapsed funding can be made available in future years under other alternatives, legislative changes are not considered necessary or desirable at this time.

2.0 ANALYSIS OF OPPORTUNITIES WITHIN EXISTING POLICIES

Mechanism

A number of mechanisms could be available within existing policies. These include:

- Allow lapsed funding from the prior year to have first priority on the contingency reserve
- Increase the use of conditional grants for supported organizations' infrastructure where effective to do so
- Use public/private partnerships or other contractual arrangements for the provision of infrastructure or information technology systems where this is the best option and can be implemented successfully
- Further develop the corporate capital overview into a long term corporate plan:
  - that can be used to manage priorities, life cycle costs and funding across all government owned and supported infrastructure in an integrated and coordinated manner within a framework of established standards and common measures; and
  - against which implementation and results can be monitored.

Implementation of each of the above mechanisms would benefit from the continuation of the Capital Planning Initiative as an on-going means to coordinate, share and challenge ministry efforts. The initiative could continue to develop, coordinate and implement the common frameworks, guidelines and performance measures identified during 1999-2000 for infrastructure and propose allocations to use lapsed funding between ministries and any available funding from the contingency reserve effectively.

Evaluation

Continuing the Capital Planning Initiative would have the following implications:

Project Management

- May enable ministries to utilize all available funding in a coordinated and effective manner
- Would assist in sharing expertise and using a coordinated and consistent approach to identifying, evaluating, and implementing public/private arrangements to achieve the best result for the government
- Could reduce the need for decision makers to approve specific projects annually although funding would still be subject to annual appropriation

- Could coordinate the carrying over of lapsed funds or acceleration of projects through arrangements with other ministries or by accessing the contingency reserve, if available
- Would improve the life cycle planning at a corporate level
- Could help ensure strategic direction and program delivery priorities are coordinated with related infrastructure requirements, particularly where infrastructure is now held in a different ministry
- Could help identify programs where conditional grants or other types of arrangements could provide an explicit long term commitment to third parties for infrastructure projects
- Could identify unique department/ministry budgeting policies or practices that contribute to or detract from effective and efficient infrastructure management

Fiscal Management and Reporting

- Would assist in integrating the management and protection of owned and supported infrastructure across government
- Would improve the life cycle planning at a corporate level
- Would provide Treasury Board and other decision makers with a more informative and complete picture of infrastructure life cycle costs and priorities
- Could increase government and ministry flexibility by maximizing the effectiveness of available funding and ensuring that alternate means of program or infrastructure delivery have been considered
- Could result in cost savings by sharing and coordinating expertise among ministries and developing more effective methods of program delivery
- Would continue cross-ministry cooperation and may improve cooperation with supported organizations
- Could ensure a plan is in place for the effective use of any funding that may become available in year from lapses or the contingency reserve

Changes to Legislative/Voting Framework

- Would not require any legislative changes

Recommendation

Capital planning within existing policies **is recommended**. Capital planning, use of the contingency reserve and use of conditional grants and public-private partnerships, can minimize issues associated with lapsed funding.

2.1 ANALYSIS OF REMOVING LAPSING REQUIREMENT

Mechanism

Option 1 – Amend Financial Administration Act

Remove the legislated requirement that spending authority for funds lapse at the fiscal year end and enable ministries to spend the lapsed amount in the next fiscal year. This continuing spending authority could apply to each capital project (i.e. funding approved project by project annually) or to the whole capital program. While the authority to spend would continue under this alternative, expenditures would be recorded in the year they are incurred. Fiscal management legislation could continue to apply to the expenditure (i.e., revenues must exceed expenditure). Therefore, some approval would be needed to use the carried-over funding in the next fiscal year to ensure a deficit did not occur.

Option 2 – Exemption from Fiscal Responsibility Act

Alternatively, the fiscal management legislation could be amended to exempt the spending related to the carried over funding. Under this alternative, no additional approval may be needed in the next fiscal year but a deficit could result. However, exemption from the Fiscal Responsibility Act is not viewed as a viable alternative since it would be contrary to the concept of open and accountable government.

Evaluation

Removing the requirement that spending authority lapse at year end would have the following implications:

Project Management

- Would enable ministries to carry over unused funding from one year to the next
- May streamline the management and planning of life cycle costs
- Could apply to the cost of acquisitions as well as maintenance and rehabilitation projects

Fiscal Management and Reporting

- Would complicate reporting against plan and therefore reduce accountability
- May reduce fund management cooperation within ministries and between ministries

- On a project by project basis:
  - May limit incentives to reduce project costs below budget
  - May create incentives to inflate project budgets
  - Would remove the flexibility to move funding between projects without a supplementary estimate
- On a program basis:
  - May keep some incentives to reduce costs below project budgets but may create incentives to inflate program budgets
  - Would retain some flexibility to move funding between projects but not between votes

Changes to Legislative/Voting Framework

- Would require legislative changes to the Financial Administration Act
- Would require at least two votes, unless all spending authority was allowed to continue; one vote for continuing authority and one for annual authority

Implications for Supported Organizations

- May provide more advantages for owned infrastructure projects than supported infrastructure projects
- Would provide no explicit long term funding commitment to supported organizations

Assuming the **annual fiscal constraints continued to apply**, in addition to the general points outlined above, this mechanism:

- Would require approval to spend carried-over amounts in the next fiscal year to ensure a deficit would not result
- Could allow Treasury Board to approve spending of carried-over amounts since it relates to fiscal plan management and not the authority to spend
- May restrict the use of the carried-over funding because of limited room within the fiscal plan

Assuming the **annual fiscal constraints do not apply**, in addition to the general points outlined above, this mechanism would:

- Result in a deficit, increasing government debt and increasing debt servicing costs
- Reduce scrutiny of these project/programs
- Reduce the accountability for managing within approved plans
- Reduce government accountability
- Require legislative changes to the Fiscal Responsibility Act as well as the Financial Administration Act

Option 3 – Carry Forward a Designated Percentage

A more modest approach to carrying-over funding authority would be to allow a designated percentage of a project/program annual lapse to be spent in the following fiscal year with or without additional spending approvals. Under this approach,

- Project delays or accelerations may be restricted since all the required funding may not be available
- A benefit may be provided in the first year of carry-over, but have limited benefit in other years
- There may be some incentive to reduce costs below budget and to inflate budgets
- On-going spending authority would need to be segregated from annual authority, therefore there would be a return to multiple votes per department
- Legislative amendments to the Financial Administration Act would be required

Recommendation

Removal of the annual lapsing requirement is **not recommended**. Although this mechanism could provide on-going authority for ministries to spend funds on capital projects:

- it may result in government expenditures exceeding revenues in a fiscal year;
- it may require multiple votes in departments, which would reduce management's flexibility;
- it would reduce accountability; and
- it would require changes to the Financial Administration Act.

2.2 ANALYSIS OF MULTI-YEAR APPROPRIATIONS

Mechanism

Funding authority can be carried into future years by appropriating funds for more than one year at a time (i.e., multiple year votes). There are several variations on this approach. Two of the more applicable variations are:

1. voting two or three years at a time as a 'capital program' appropriation, or
2. voting the total project cost for each major project in the year of approval and "drawing-down" the approved funding over a period of years until the project is completed.

While the authority to spend would continue under either of these variations, fiscal management legislation could continue to apply to the actual costs and require spending to adhere to fiscal plans. Alternatively, the fiscal management legislation could be amended to exempt this funding and the related spending, thereby allowing unlimited spending on the projects within a given fiscal year. Exemption from the Fiscal Responsibility Act is not viewed as a viable alternative since it would be contrary to the concept of open and accountable government.

Evaluation

The justification for multi-year appropriations is that budgeting for those items that are predictable is different than budgeting for those items subject to great volatility whether due to the economy or changes in policy. There seems to be little reason to re-examine and reauthorize capital project spending more than once unless significant changes to the project have occurred.

Implementation of multiple-year funding would have the following implications:

Project Management

- Would allow ministries to carry over unused funding from one year to the next
- Would allow the time used for budgeting, justifying and approving funding related to the same project, to be used for improved oversight, financial management and analysis of program effectiveness
- Would allow multiple year capital commitments and reduce uncertainty about future funding levels and allocations

- May influence the projects undertaken/designed (e.g., smaller projects may be bundled into or over-designed into major projects if funding advantages are perceived)
- On a Total Project Cost basis, multiple year funding:
  - May limit incentives to reduce project costs
  - May create incentives to inflate initial project budget to ensure sufficient funding is available; particularly for longer projects where inflation or other unpredictable factors may contribute to the risk of cost escalation
  - Would ensure the legislature is aware of the total cost of a major project
  - May streamline the management and planning of construction costs
  - Would limit the number of projects funded in any one year and may advance projects that fit within available funds rather than highest priority projects
  - Would remove the flexibility to move funding between projects without supplementary estimate
  - Would be more applicable to major new projects or rehabilitation and of limited use for on-going maintenance costs
- On a Two or Three Year Vote basis, multiple year funding:
  - May keep some incentives to reduce costs below project budgets but may create incentives to inflate program budgets
  - Would retain some flexibility to move funding between projects but not between votes
  - May be applicable to all life cycle phases
  - Could increase or decrease depending on demands and funding available

Fiscal Management and Reporting

- Would create difficulties in the development of fiscal plans since the annual draw against the 'multiple year appropriation' may not be known with certainty.
- Would reduce the government's fiscal flexibility
- Would require ministries to manage projects within approved project/program limits or return to the Legislature for additional funding approval
- May create some incentive to inflate project costs to ensure sufficient funds are available over the length of the project
- Would complicate reporting against plan
- Would increase the risk that an unusually high draw against the approved funding during a particular fiscal year could cause the government to be in violation of the 'no deficits' provision of the Fiscal Responsibility Act.

Changes to Legislative/Voting Framework

- Would require at least one vote for an annual appropriation and one for multiple year appropriation
- Would require legislative approval to transfer funding between an annual vote and a multiple year vote or to increase the vote

Implications for Supported Organizations

- May provide more advantages for owned infrastructure projects than supported infrastructure projects

Assuming the **annual fiscal constraints continued to apply**, multiple year funding:

- Would not allow spending in excess of planned amounts in a fiscal year without prior approval to ensure government revenues continued to exceed expenditures; Approval could be given by Treasury Board rather than the Legislature since the approval would deal with the management of the fiscal plan rather than the authority to spend
- Would require legislative changes to the Financial Administration Act

Assuming the **annual fiscal constraints do not apply**, multiple year funding:

- Could allow spending in excess of planned amounts in a fiscal year without prior approval
- Could result in an annual deficit, increase government debt and increase debt servicing costs
- Would reduce the legislature's scrutiny of progress/costs of these projects/programs
- Would reduce accountability
- Would require legislative changes to the Fiscal Responsibility Act as well as the Financial Administration Act

Recommendation

Use of multiple year appropriations is **not recommended**. This mechanism could provide on-going authority for ministries and could enable a longer term commitment to supported organizations. However,

- it may result in government expenditures exceeding revenues in a fiscal year;
- it may require multiple votes in departments which would reduce management's flexibility); and
- it would reduce accountability and fiscal flexibility.

2.3 ANALYSIS OF ESTABLISHING AN INFRASTRUCTURE FUND

Mechanism

Carrying funds to the next fiscal year could be achieved by creating an infrastructure fund into which some or all of the lapsed funds and other portions of the annual surplus could be placed rather than using the funds to repay debt. Under this method, the fund could receive some amount each year and the fund could be allowed to earn and accumulate interest. When the lapsed funds are needed, amounts could be withdrawn from the fund. As well, the cost of replacing or rehabilitating existing assets and acquiring new ones could be charged against the fund.

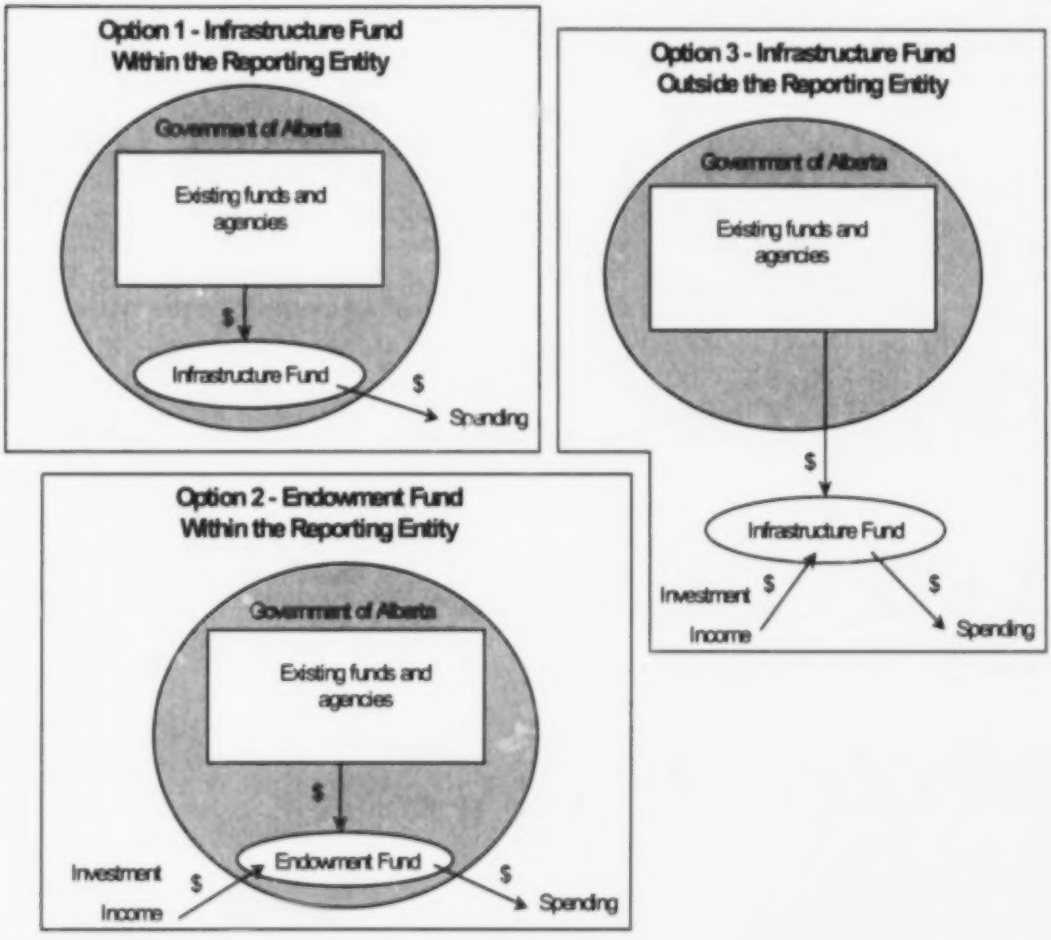
Government Controlled

The fund could be retained within the control of the government and treated as a government fund (Option 1) or government endowment fund (Option 2).. That is, revenues and expenditure would be recognized according to government accounting policies, would be consolidated in the reporting entity, would be included in ministry budgets and the government fiscal plan, and would be subject to appropriation. A fund's exemption from the Fiscal Responsibility Act is not viewed as a viable alternative since that step would be contrary to the accountability framework and its concept of open and accountable government.

External to Government

However, a fund beyond the control of the government (Option 3) could be treated differently. Any amount contributed by the government to the fund would be treated as government spending in the year that it took place. Earnings of the fund would not be included in government revenue and spending would not be subject to the government's appropriation process or fiscal management legislation. The government would not be able to determine how the funds would be spent or when, other than through the conditions imposed when the fund was created. Annual reporting by the fund administrator on planning, projects undertaken, spending, earnings, etc. would be needed to satisfy the government's accountability for the use of taxpayer's dollars. One Fund could be established for all infrastructure, different funds could be established for different groups (e.g., RHAs, school boards, municipalities) or members within a group (e.g., each RHA, school board, municipalities, etc.), or for each major project fully or partially supported by provincial funding.

The options are illustrated by the following chart.



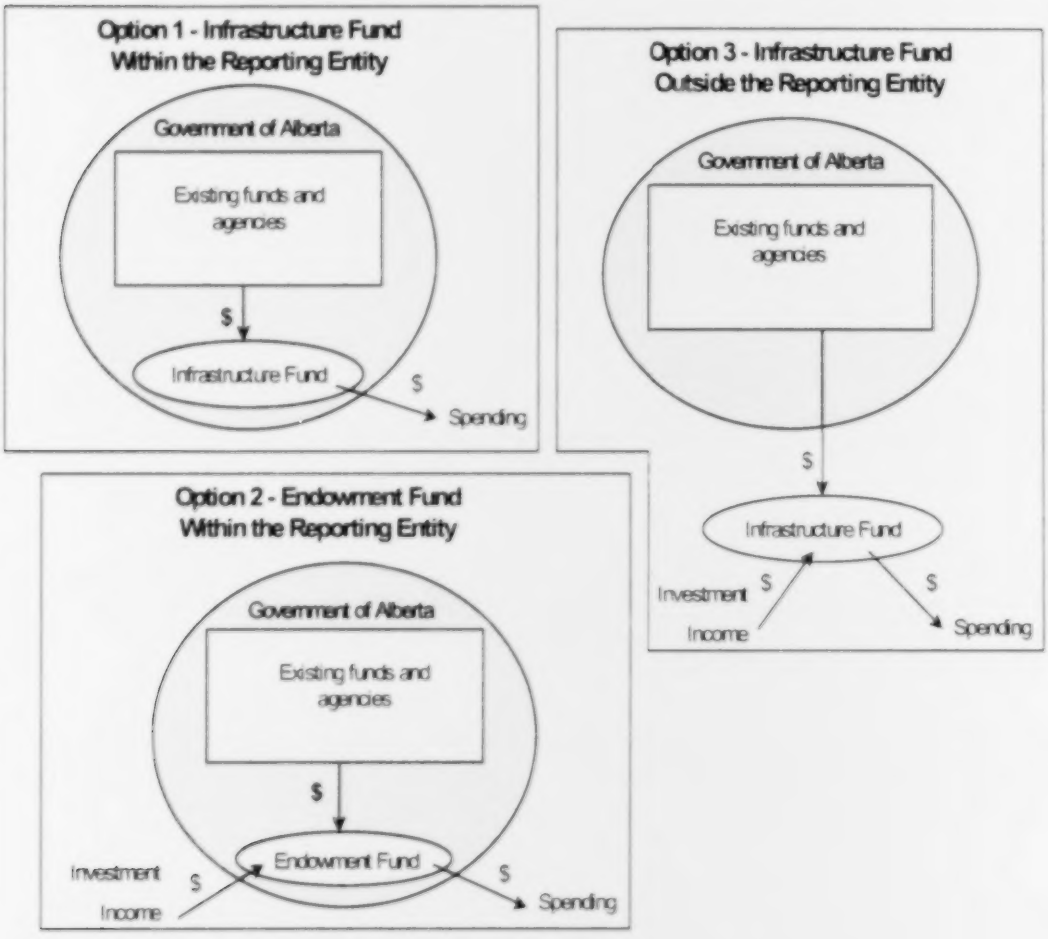
Evaluation

Establishing an infrastructure fund outside the government reporting entity would have the following implications:

Project Management

- Would enable the carrying over of unused funding from one year to the next
- Would not help with the funding of government-owned infrastructure since the government could not be beneficiary of the Fund
- Could apply to all life cycle costs

The options are illustrated by the following chart.



Evaluation

Establishing an infrastructure fund outside the government reporting entity would have the following implications:

Project Management

- Would enable the carrying over of unused funding from one year to the next
- Would not help with the funding of government-owned infrastructure since the government could not be beneficiary of the Fund
- Could apply to all life cycle costs

- May require ministries to revise project approvals to fund entire projects rather than on an annual needs/cash-flow basis
- May be more complex than providing conditional grants which may accomplish a similar result and reflect current government priorities

Fiscal Management and Reporting

- May not reflect government's changing priorities since the Fund Administrator would be held accountable for compliance with the original parameters set when the Fund was established
- Would provide less accountability and openness since the Fund would not be part of the province's planning and reporting
- May add complexity to the coordination of ongoing provincial infrastructure spending and program priorities
- Would be subject to annual spending limits within the Fund to ensure its long-term viability
- May limit the flexibility to move funding between projects, depending on the set-up of the Fund
- Would reduce the amount used to repay government debt and therefore ongoing debt servicing costs would be incurred
- Could enable the government to make one funding decision for a project/program rather than annual decisions

Changes to Legislative/Voting Framework

- May require no legislative changes
- Would not require a separate vote within a contributing ministry

Implications for Supported Organizations

- Would provide an explicit long term funding commitment to supported organizations if sufficient funds were in the Fund

Recommendation

The establishment of an infrastructure fund(s) is **not recommended** on its own. However, its use could be considered in conjunction with other opportunities within existing policies for supported infrastructure. This mechanism could provide funding which is not constrained by the government's fiscal policies and could enable a longer-term commitment to supported organizations. Funds could not be used for owned infrastructure projects since these would still be subject to the Fiscal Responsibility Act, i.e. Revenues must exceed expenditures for the year. In addition, it may result in:

- reduced government accountability;
- less responsiveness to changing government priorities; and
- more complexity in the planning and coordination of infrastructure delivery.

2.4 ANALYSIS OF USE OF NET ASSETS

Mechanism

Currently, the Fiscal Responsibility Act requires revenues to exceed expenditures in each fiscal year. This control was viewed as essential while the province brought deficits and debt levels into line. Now the province is in a net asset position, this requirement could be viewed as overly restrictive particularly in the financial management of capital assets.

The Fiscal Responsibility Act could be amended to allow expenditures to exceed revenues in some circumstances but retain the Act's 5-year debt reduction targets or expand them to annual targets for enhanced control. Allowing deficits when ahead of legislated debt repayment or other specified circumstances brings the province's financial management closer to the private sector model and would allow funds lapsed in one year to be used in a future year. Since lapsed funds are added to the province's net asset position in the year of the lapse under current accounting policies, they are in effect carried to the next fiscal year. Increasing a future year's spending authority would access these lapsed funds and if a deficit resulted, it would be subtracted from the province's net asset position. As long as the incremental spending was limited to that lapsed in previous years, the government's net asset position would be retained at the original targeted level.

Evaluation

Permitting lapsed funds to be accessed in future year's by increasing ministry spending by an equivalent amount even if a deficit results would have the following implications:

Project Management

- Would enable ministries to carry over unused funding from one year to the next
- May streamline the management and planning of life cycle costs of infrastructure
- Could apply to all life cycle costs and to owned and supported infrastructure
- Could provide greater flexibility to ministries to manage capital projects, particularly when projects are slowed by factors beyond the ministry's ability to control (e.g., weather, environmental approvals)
- May limit incentives to reduce project costs below budgets and to inflate project budgets

Fiscal Management and Reporting

- Would be a significant change in government's fiscal management policies and commitments to "never have a deficit again"
- Would increase the risk of a deficit
- Would increase the complexity of managing the province's finances
- Could limit the access to lapsed funds if required to meet debt reduction targets
- May slow the repayment of debt and reduction of debt servicing costs therefore limiting the government's fiscal flexibility
- May reduce cooperation within ministries and between ministries
- Does not increase the overall cost of the project or the ministry's overall budget

Changes to Legislative/Voting Framework

- Would require legislative changes to the "no deficits" provision of the Fiscal Responsibility Act
- Would not require a change to the number of votes within a ministry
- Would require an appropriation to authorize the incremental spending when lapsed funds are accessed

Implications for Supported Organizations

- Could provide greater funding commitment to supported organizations

Recommendation

Allowing previously lapsed funds to be accessed through an annual deficit is **not recommended** at this time. March 31, 2000 will be the first year-end since March 31, 1987 that the government will be in a net asset position. A period of increasing net assets may be required before the government and Albertans are comfortable with an occasional deficit.

2.5 ANALYSIS OF CAPITALIZATION OF ASSETS

Mechanism

Lapsed funding could be carried to a future fiscal year by changing the accounting policy used for capital assets to adopt a full accrual policy. Currently, the province expenses capital assets in the year of acquisition and recognizes the proceeds of disposition as revenue when capital assets are sold. Budgeting policies follow these same accounting policies. Therefore, the amount of spending on capital assets directly affects the province's surplus position each year.

Under full accrual accounting, only the annual amortization and any gains/losses on disposals would affect the province's surplus. Rather than appearing as expenditures, capital assets would be included on the province's balance sheet. Since amortization reflects only a portion of the assets costs, a delay or acceleration in the acquisition of capital assets may have only a marginal effect on the surplus. However, in order for ministries to have funds available to spend on capital assets, capital asset funding would need to continue to be appropriated annually.

Evaluation

The 1998-99 Annual Report of the Auditor General of Alberta indicated that his Office is an advocate of full accrual accounting for capital assets. The public sector accounting standard setting body is also reviewing the current accounting standards for capital assets.

Changing the accounting policies for capital assets from a pay-as-you-go basis to the accrual basis would have the following implications:

Project Management

- Would not necessarily enable ministries to carry over unused funding from one year to the next

Fiscal Management and Reporting

- Would be a significant change in government's fiscal management policies
- Would complicate reporting against plan and budgets which reduces accountability
- Would increase the complexity of managing the province's finances thereby making it more difficult for decision makers and Albertans to understand

- May result in increased annual capital expenditure since the effect on the province's surplus is reduced; Increased spending may increase the province's debt and debt servicing costs and diminish the overall fiscal health and flexibility of the province
- Matches financial liabilities with non-financial assets which may present a false impression of fiscal well-being
- May shift decision makers' focus from accrual information to cash-flow information since cash-flow is simpler to understand and more consistent with information needed for annual appropriations
- May skew decision making due to differences in accounting and funding for owned and supported infrastructure

Changes to Legislative/Voting Framework

- Would not necessarily require legislative changes
- May require owned capital asset funding to be voted separately from operating expenses, including grants for supported assets

Recommendation

Changing from the pay as you go basis of accounting to accrual accounting is **not recommended**. This accounting policy change may not provide ministries with access to lapsed funds and would add more complexity to the accounting and budgeting of owned infrastructure.

MULTI-YEAR BUDGETING
TERMS OF REFERENCE

Strategy 2

Review budget policies and practices for multi-year infrastructure programs and projects.

Target

Report identifying issues, options and recommendations for multi-year infrastructure budgeting by December 31, 1999.

Terms of Reference

- Within existing budgeting policies and practices, identify difficulties in the management of infrastructure programs/projects arising from annual appropriations and propose alternate means of minimizing the problems
- Infrastructure will include both owned and supported
- The review will consider all aspects of planning for life cycle costs (e.g., acquisition, preservation, rehabilitation and dispositions)
- Alternatives could include:
  - Multi-year rolling votes (e.g., 3 years, by project, by program)
  - Carry over of lapsed funds (e.g., whole amount, percentage)
  - Sinking Fund
    - Created by setting aside a percent of each year's surplus and applying for use of the available dollars, or
    - Setting aside the total project cost at the beginning of a project
  - Mechanisms to make annual adjustments to cash flows for changing circumstances (e.g., overexpenditure, supplementary estimate, contingency allocation)
  - Block funding for capital programs (e.g., $x/year)
  - Dedicated funding sources
  - Cross-government in-year budget reallocations
  - Longer planning horizon (e.g., 5 years)
  - Improve planning with owners of supported infrastructure
- Assess proposed alternatives
- Recommend changes, if any, to current budgeting policies and practices to improve management of infrastructure

TASK GROUP MEMBERS

Ann Hammond, Treasury

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Bob Sharp, Environmental Protection (Environment)

Larry Wilson, Infrastructure (Education)

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1.0 RESEARCH ON PLANNING AND MONITORING

British Columbia

Planning Process

- Use a four-year planning cycle with plans updated annually.
- Each year, departments are advised of capital funding limits they must work within. This limit is based on the government's financing capabilities and previously identified priorities for the cycle.
- Typically, the Provincial Treasury obtains lines of credit for projects through the CIBC. Treasury will issue bonds to raise money to pay back the funds that have been borrowed.
- Activities which are priorities for capital funding include maintenance projects, renovation or replacement projects and expansion projects. Periodically, there are also mega-projects (such as an ongoing rapid ferry project) that rank highly among requests for funding. Once capital funds have been allocated to these projects, remaining funds are then allocated to other projects identified by departments or agencies.
- The Capital Division of the Ministry of Finance and Corporate Relations is responsible for recommending to Treasury Board and Cabinet overarching policies and priorities in the preparation and delivery of the province's annual capital program. The capital program includes expenditures on social capital projects (e.g. universities, colleges, schools, hospitals, courts and corrections facilities) and the capital expenditures of taxpayer supported Crown Corporations (i.e., BC Ferries, BC Transit, BC Transportation Financing Authority, BC Buildings Corporation).
- The Capital Division's Budget and Policy Branch coordinates and evaluates capital budget submissions to ensure that they are consistent with identified priorities and commitments. They also look for opportunities to contain costs such as the sharing of space to accommodate project requests (e.g., putting two facilities on the same site).
- Recommendations are typically forwarded for Treasury Board for consideration in October or November.

Monitoring Process

- Crown Corporations submit regular budget updates to the Capital Division for review. The Division's Implementation Branch monitors budgets for the social capital projects.
- The branch provides technical and professional analysis and direction of the planning, design and construction phases of capital projects to ensure value for money and that projects are within budget.

- Recently, 40 project managers were centrally relocated to the Implementation Branch to support this function. Part of their role will soon be to monitor projects on a monthly basis.
- There is flexibility within the Capital Division to allocate surplus funding from one department, due to such things as project delays, to offset identified deficits in other departments. However, future year limits will be adjusted accordingly. For instance, assume that the Ministry of Finance and Corporate Relations has identified capital funding limits of $300 million and $200 million for Education and Health, respectively. If, in 1999-2000, Education identifies a need for an additional $100 million and this can be accommodated through a reallocation of surplus funds from Health, Education's capital limit for 2000-01 will be reduced to $200 million and Health's will be increased to $300 million.
- If, in the monitoring process, project managers find that a project will overspend by at least 10% of its budget or $1 million, Treasury Board must review the project and sign-off on any budget increases.

Ontario

Planning Process

- Currently using a four-year planning cycle.
- In 1998-99, ministries were asked to identify capital projects in the business planning process and were required to present a vigorous business case to support their capital project requests.
- Ministries determine the priority of their requests based on their own specific business needs. For example, Education may rank their project requests based on space per pupil while Transportation may rank theirs based on highway rehabilitation need.
- The Ministry of Finance attempted to give individual ministries a template with criteria to use in the ranking of their project requests, however it became difficult to quantify and compare economic and social benefits and make a conclusion as to what was more important.
- Ministries are asked to identify the most cost-effective way to address business requirements and provide both qualitative and quantitative support for their requests. Cost/benefit analyses are used.
- The Ministry of Finance inputs individual ministry requests into a database with all of the relevant information provided by the ministry to support the request. This includes the results of the cost/benefit analysis, the potential regional impact of the project, the extent of partnering with other ministries or parties to undertake the project, as well as the ranking that the ministry assigned to the project within its own requested project listing.

- Ontario is trying to move toward joint planning/consultation across ministries in the preparation of business and fiscal plans. To date, individual ministries have typically carried out planning in isolation from each other

Monitoring Process

- Ministries identify over and under-expenditures through a quarterly forecasting process.
- Ministries are not asked to officially quantify in-year savings until year end.
- There is no provision that allows for a great deal of flexibility in reallocating funds from one department to another during a given fiscal year.
- In addition, funds typically cannot be allocated from the operating vote to the capital vote or vice versa. However, an allowance was made for one such reallocation in 1998-99.

Other Information

- The "SuperBuild Growth Fund" was established for 1999-2000 to fund infrastructure and innovation-related projects.
- The fund was established to encourage partnering between the public and private sector in the funding of a project (e.g., project for a university - if the government is willing to dedicate $x dollars to it, the university may be able to match that funding through its own means or by identifying private sector contributors).
- The Fund supports post-secondary institutions, highways, health capital requirements such as renovations and expansions, and renewal of correctional facilities.

New Brunswick

Planning Process

- Infrastructure programs are funded through actual capital funding allocations as opposed to being funded through grants.
- Introduced a multi-year planning cycle process in 1998-99.
- Individual departments build their budget plans based on needs identified through discussions with stakeholders and factors including the age of facilities and requirements based on demographic changes. Based on this information, departments prioritize their lists of projects for which funding will be requested.
- Planning process involves the submission of Capital Initiative Requests (CIRs) by ministries. Through these requests, departments bring forward projects to the Department of Finance for consideration where they are reviewed against requests from other departments, identified regional needs and government priorities.

- Capital Appropriation Requests (CARs) are made by departments for proposed projects to identify how cash flows will be dispersed over the life of the project. Cash must be flowed to previously approved projects first.
- Once a project is approved, it is published in the Government Estimates.
- Previously, all capital votes used to be by department, and where there were in-year over-expenditures that internal reallocations could not address, departments would seek supplementary estimates. Under the existing system, each department determines its own capital requirements but the entire capital budget for the government is voted under the department of Supply and Services.

Monitoring Process

- Year-to-date expenditures are monitored on a monthly basis for projects with a total approved project cost of at least $0.5 to $1 million. Their Board of Management (equivalent to Alberta's Treasury Board) reviews status reports for each project.
- Work orders and change orders for projects are monitored closely and where its looks as though budgets will be overspent, projects are flagged for critical review by the Board of Management.
- Supply and Services manages all projects. Because the entire capital budget is voted under Supply and Services, flexibility exists to reallocate surplus funds from one department's project to offset potential over-expenditures in another department 's project
- New Brunswick's monitoring process is fairly sophisticated. Such a system is possible because of the relatively small number and magnitude of projects undertaken compared to other provinces.

United States

The following summarizes the planning and monitoring processes used by three of the top four rated states (Missouri, Washington, Virginia and Utah) in five key areas, including capital planning, as identified in the February 1999 Governing Magazine article on *Managing for Results*. The summary is based on information found through an Internet search and following up with State officials.

Missouri[1]

Planning Process

- Have a five-year capital planning cycle.
- The Missouri process is required in state statute.

[1] Missouri Website (www.oa.state.mo.us/bp/bp.htm)

- The Office of Administration must submit a long-range plan to the Governor for the repair, construction, and rehabilitation of all state properties.
- The plan must set forth the projects proposed to be authorized in each of the five years with each project ranked in the order of urgency of need.
- Project proposals must be accompanied by workload and utilization information explaining the need and purpose for each.
- Plans are updated annually.
- A biennial capital improvement process was implemented in 1994.
- The operating budget remains an annual process at this time.
- The biennial capital improvements budget has eliminated the need to be budget-focused every year and freed all staff to review capital needs, and develop more comprehensive long-term agency plans.
- Implementation of the biennial capital improvements process allowed staff in the Division of Design and Construction (D&C) to develop a Microsoft Access database that is used for all capital improvements budget requests and long-term projects.
- The database has dramatically decreased the amount of time spent by the departments, the D&C, and the Division of Budget and Planning in preparing budget requests. Cost estimating procedures have been standardized.
- Capital budget instructions are circulated to each department in March of each even numbered calendar year.
- All departments use the instructions as guidelines for the preparation of the immediate biennial budget and the capital improvements long-range plan.
- An automated Microsoft Access capital improvement database accompanies the distributed budget instructions.
- The database contains all capital requests of the departments not funded in the previous budget cycle.
- The departments update/add/delete capital requests as appropriate.
- All unfunded requests are rolled into the next fiscal year for department update.
- This allows planning to be an on-going process and enables specific maintenance and repair project funding in the second year of the biennium from a reserved, initially unallocated pool of funds.
- Departments also contribute to the development of a long-range capital plan. This plan has five separate categories, including Maintenance and Repair, Corrective Construction, Energy Conservation, Renovation/Rehabilitation, and New Construction. Each category is prioritized at the agency level and then again at the department level.

Once completed, departments submit long-range plans to D&C for evaluation.

- D&C reviews the long-range plan for consistency and accuracy.
- In cooperation with Budget & Planning, internal reviews are conducted with respect to projected revenues compared to capital requests.
- In addition, D&C and Budget and Planning work with the departments to understand the program need for the capital request, evaluate the ongoing operational costs, and evaluate alternatives to the request.
- Once revenues are established and projects validated, the budget is presented to the Governor for review and approval.
- The Governor's recommendations are then presented to the Legislative Branch for review and appropriation.

Monitoring Process

- In-year savings from one department generally cannot be reallocated to another within a fiscal year. The only time that this could happen is when there are general appropriations that are available to multiple departments.
- This provision is usually set aside for special purposes, mostly with limited funding - emergency appropriations for unexpected repairs, unprogrammed requirements for unforeseen projects, hazardous materials projects, roofing management, and paving management.
- Also have set aside funding for the second year of the biennial capital budget for maintenance and repair projects that are unidentified.
- They identify projects later for the second year.

Washington[2]

Planning Process

- The Washington State Budget and Accounting Act requires state agencies and institutions to submit a plan of proposed capital spending for a ten-year period, starting with the ensuing biennium.
- Capital projects are grouped into two main classifications: preservation projects and program projects.
- Preservation projects are those that maintain and preserve existing state facilities and assets, and do not significantly change the program use of a facility.
- Program projects are intended to accomplish a program goal such as changing or improving the use of existing space, or creating a new facility or asset through construction or purchase.
- Capital projects are prioritized in two ways:

[2] Washington Website (www.wa.gov/ofm/capinstruct/capbudtoc.htm)

1. those projects outlined in the agency's strategic plan and the goals and objectives derived from that plan.
2. the priority structure used by the Office of Financial Management (OFM) in reviewing capital budget requests.

- By cross-referencing these two lists, OFM can assess how agency priorities relate to statewide priority classifications, which include: Protection of People, Protection of Assets, Protection of the Environment, Cost Savings, and Program Need or Requirement.
- For short-term improvements, agencies are expected to use cash accounts whenever possible.
- For larger "program" projects with long useful lives, long-term bond sales or other long-term financing options are appropriate.
- Agency selection of a fund source should occur after preservation, program, and policy choices are made.
- The determination of which projects can be supported by the state General Fund, dedicated accounts, bond funds subject to the state's debt limit, or some other source should not determine what is included in the budget.
- The Governor prepares his Ten Year Plan based on a review and evaluation of agency Capital Plan proposals. Projects included in the first biennium of the plan (1999-2001), will constitute the Governor's capital budget.

Monitoring Process

- Agencies will be required to identify estimated cost and cash flow data by month for each appropriation received. The data will become the basis for evaluating project status throughout the next biennium.
- As projects are completed, OFM is directed to provide the Legislature with a final summary showing estimated start and completion dates of each project phase compared to actual dates, as well as estimated costs of each phase compared to actual costs.

Virginia[3]

The following summary is based on a 1994 study entitled "Evaluation of the Commonwealth's Capital Outlay Process" conducted by a team from the evaluation section of the Department of Planning and Budget

[3] Virginia Website (www.state.va.us/dpb/studies/studies.htm)

Capital Planning Process at the Time of the Study

- Agencies work with Department of Planning and Budget (DPB) and Department of General Services (DGS) to define the project budget scope.
- DPB prepares and distributes instructions, which describe the capital budgeting process.
- These instructions include details about six-year plan development, maintenance reserve funding, capital project proposals, preplanning studies, and required reporting forms.
- Agencies collect internal information about capital needs before the DPB instructions are distributed. Then the agency management prioritizes projects and prepares budget justifications according to DPB instructions.
- DPB approves projects for preplanning studies and notifies agencies they may proceed but, at this point, there is no DPB commitment that funds will be available to support full design and construction of the facility.
- DPB defers final decisions about which projects it will recommend for inclusion in the Governor's budget until after agencies complete preplanning studies.
- Bureau of Capital Outlay Management (BCOM) reviews preplanning studies to determine if the proposed scope and budget for projects are appropriate. BCOM modifies budgets by evaluating design details in the preplanning study and compares proposed design to various industry standard cost estimating guides.
- DPB prioritizes capital projects based on the Governor's policy goals and the availability of funds.
- The Governor presents the biennial budget to the General Assembly. The General Assembly may add, delete, or modify project funding before passing the Appropriation Act.

Weaknesses Associated with the Capital Planning Process

Some of the weaknesses identified with the system that existed at the time include the following:

Budgeting and Legislative Timetables

- Agencies request funding for capital needs every two years, as mandated by the Constitution of Virginia.
- This timetable restricts agencies' ability to respond to program needs when they occur outside the normal capital budgeting cycle.

Long-term Planning

- DPB has allowed agencies a great deal of latitude in implementing existing plans. To adequately plan for construction and renovation, agencies should conduct extensive long-term planning.
- However, agencies often take a piecemeal approach to planning for capital outlay.

Interagency Database

- A database which tracks life-to-date information about capital projects could serve as an early warning device for managers that projects are not progressing as they should.
- A single source that incorporates appropriation history, design, and construction information does not currently exist.
- To remedy this deficiency, inter-agency efforts to develop a comprehensive capital outlay database should be undertaken.

Value Engineering

- Agencies are required by law to conduct value engineering studies for project costing over $5.0 million to identify low cost construction techniques.
- The value engineering study is similar to BCOM's cost containment function.
- The role and functions of agencies and BCOM in executing value engineering studies should be clarified to prevent duplication of effort.

Maintenance Reserve Program

- Despite the demonstrated need for maintenance work on state-owned facilities, agencies are not always able to spend maintenance reserve appropriations in a timely manner.
- Maintaining existing facilities should be high priority and needed repairs should be done when funds are available to support them.

Recommendations

Some of the recommendations identified to improve upon the existing planning process included:

- Agencies should improve long-term planning for capital outlay expenditures. All requests for capital projects should be based on comprehensive master plans and six-year plan submissions.
- Agencies should integrate strategic planning, existing space utilization analysis, and capital planning. Approved master plans and the six-year capital outlay plan, consistent with the Governor's priorities, should be the basis for all capital budget requests. Agencies should fully justify project requests not included in the six-year plan, or the project should not be considered by DPB.
- Agencies should prepare or update master plans regularly.
- The Governor and the General Assembly may wish to consider creating a two-tiered design and construction appropriation process. Initial budget recommendations should include design funds only. Projects funded should be pledged construction funds as soon as dollars are available. The capital budget process should be modified to accommodate the following:
  - The Governor and General Assembly may wish to eliminate preplanning studies. Funds previously used for preplanning studies should be redirected, as appropriate, to support comprehensive master planning efforts.
  - Agencies should describe projects in detail and fully justify them in the capital budget request.
  - DPB should evaluate capital budget requests in collaboration with BCOM to ensure costs are in line with other similar facilities and designs are appropriate.

2.0 RESEARCH ON REMOVING LAPSING REQUIREMENT

Government of Canada

The following summarizes the federal government's carry forward policies, which vary with respect to operating, capital, and grant and contribution spending.

Operating Budgets

Description

Operating budgets were introduced government wide in 1993-94 (following a series of pilot projects in the two previous fiscal years). The operating budget regime was initially established with the following key features

- a 2% carry forward (carry-over) provision;
- elimination of person year controls, coupled with the requirement that a department set aside a 20% "allowance" for employee benefits should it increase its salaries (representing the cost of employee benefits outside the operating budget). Conversely it would receive 20% should they move monies out of salaries to other operating expenditures, and
- integration of minor capital with operating expenditures.

In the 1994 Budget, the limit on the operating budget carry forward was increased to 5%.

The carry forward is managed centrally (i.e. by the Treasury Board Secretariat), but the amount carried forward from the previous year must be approved by Parliament through in-year Supplementary Estimates. For this policy to have the optimum impact, the carry forward amount should be returned to the budget of the manager who lapsed the funding.

Process

- Once the accounts are closed for the fiscal year (generally three months after the year end), departments report their carry forward amounts.
- There are a number of adjustments made to the actual lapse as reported in the Government of Canada's Public Accounts, for example:
  - Adjustments are made to reflect the 20% "allowance" for under-spending or over-spending the salary provision. Funds carried over are treated as non-salary and the department must set aside the 20% should it use the carry forward for salary;
  - Departments are given credit for new expenditure items they are able to manage within what otherwise would have been lapsing funds; and

- Where departments have a revenue-spending authority, the application of the carry forward is less straightforward. (In such situations, the amount appropriated by Parliament is their approved expenditure budget less forecast revenues.)

Generally speaking, there is an upward bias in the amount appropriated by Parliament because departments do not want to fall short of funds should revenues not materialize. As a result, the amount of funds such a department is eligible to carry forward is equal to the amount lapsed adjusted downward by the amount that actual revenues exceeded the forecast used in setting their budget.

Capital Budgets

Description

In the case of capital funding, the Policy provides that departments may carry forward up to 5% or $75 million.

Process

- By mid-December, departments must write to the Secretary of the Treasury Board to demonstrate the need to carry funds forward (generally project/contract specific justification).
- Upon approval, the department is notified that the funding will be included in the following year's Estimates and separate controls are placed on the current year funds, so that the funds are no longer available to the department.

Other Budgets

There is no formal policy on the carry forward of transfer payment (grant and contribution) budgets, although in practice departments can seek to carry funding forward. The requirement generally occurs because of program slippage, for example delays in reaching agreement on terms and conditions for a program; or establishing recipient eligibility.

Process

- By mid November, departments must identify their requirements to carry funding forward to the following year.
- Once requests have been received, they are assessed taking into account the nature of the obligation (for example, is there a legal obligation to make the payment) and overall affordability.
- If there is a legal or quasi-legal obligation to pay, the funds are usually approved for inclusion in the following year's Estimates.
- The funding approved, but not required, for the current year must be set aside in a separate frozen allotment.

3.0 RESEARCH ON MULTI-YEAR APPROPRIATIONS

City of Calgary

The Administration for the City of Calgary was asked by Council to prepare a report reviewing options for:

- multi-year budgets
- integration of business plans and performance measures within the budget
- a formal financial budget/business plan update be provided semi-annually to Council;

Following are excerpts from that report:

Multi-Year Budgeting

For the purposes of this report, multi-year budgeting is defined as approving budgets for more than one year at a time. Multi-year budgeting can be advantageous because it reduces the amount of detailed budget review by Council over the multi-year cycle. This allows more time for dealing with strategic and policy issues. The administrative work required in years not involving detailed reviews would be reduced as well. On the other hand, forecasting revenue and expenditure for more than one year ahead is subject to greater uncertainty. Any proposed changes to the approved budgets would, however, be brought to Council each year before the municipal tax rate is set.

The Municipal Government Act requires that each council must adopt an operating budget for each calendar year. This does not preclude the adoption of more than one annual operating budget at the same time, so Council can adopt multi-year budgets.

For planning purposes, the Administration already prepares multi-year budgets for both operating and capital. However, while Council approves multi-year budgets for capital projects starting in the year in which they begin (e.g. interchanges, LRT extensions), it does not currently approve operating budgets beyond the first year.

One form of multi-year budgeting that could be adopted would be to have three years of operating budgets approved to coincide with Council's term in office and the three-year business plan. If this was applied to the present budget cycle, the detailed review and approval of the 1999 budget would be followed in the next two years by summary reviews each fall preceding the 2000 and 2001 budgets. Because this approach was not implemented at the beginning of the 1999 process, Board of Commissioner-approved budget targets for the 2000 and 2001 budgets would be prepared for each responsibility centre and included in the 2000 Budget Guidelines. Council could then provide approval in principle to the targets and deal primarily with proposed adjustments during the fall reviews.

Integrating Business Plans and Performance Measures with the Budget

The City has been working on its performance measurement and three-year business planning processes for a number of years. While both the performance measures and business plans provide the detailed information that the departments need to implement strategies and policies, they provide more detail than Council requires to set the strategies and policies and evaluate their effectiveness and efficiency. The result of having so much detail included with the budget is that the budget document is very large and Aldermen may have difficulty finding time to review all the planning and performance measurement material.

To better integrate the business plans and performance measures with the budget, higher level, concise versions could be provided that would be more closely tied to correspondingly higher level program budgets. This would make it easier to gain an overall understanding of what The City plans to achieve over the budget period, how much it will cost to do so, and how the overall results can be evaluated.

To provide the means for Council to stay in touch with the operations of specific programs, each year it could look at the more detailed plans and performance measures for selected programs during periodic reviews (as described in the next section). This would reduce some of the time requirements from the budget approval process while providing Council with the operational understanding that it wishes to have.

Semi-Annual Budget/Business Plan Updates

The Administration provides monthly budget responsibility center executive summaries as well as capital and operating budget status reports three times per year (cumulative results to the end of May, August and December). The primary purposes of the status reports are:

1. To report and explain significant operating budget variances and the results of capital budget programs that are not proceeding as originally planned.

2. To summarize changes to operating and capital budgets as a result of Council decisions since the last status report, and to request approval of additional budget changes.

The status reports have served their intended purposes, but they could be expanded to include the extent to which service, business plan and financial objectives are achieved. These expanded reports would be more useful to Council and could be used to provide information to the public as well, although they would require additional administrative effort and cost.

Analysis

The options for improving the budget process described in this report would need to be developed in more detail with input from members of Council in order to be implemented in ways that would be most useful to Council.

A number of significant initiatives are being carried out in the organization this year (e.g. Organizational Review Phase 2, Transportation Funding Initiatives, Y2K, Market Value Assessment, Implementation of Freedom of Information and Privacy Legislation, PeopleSoft Human Resources and Financial Suites), so The City may not be able to apply the necessary focus and resources to undertake a complete review of the budget process for the 2000 Budget. Results of the organization review may also have impacts on budgeting that would be appropriately dealt with in an overall budget process review. As such, the Finance Department believes it would be prudent to develop and implement most changes for the 2001 Budget.

In the interim, however, multi-year budgeting could be implemented effective with the 1999 Budget, with the budget targets for 2000 and 2001 being approved in principle with the 2000 Budget Guidelines in June.

The 2000 Budget Guidelines will include responsibility centre budget targets for 2000 and 2001 using the 1999 budget as a baseline. Combining the early adoption of targets with a reduction of detail in the budget document will reduce the time required by Standing Policy Committees and Council to review the budgets for 2000 and 2001. The targets would not prevent responsibility centres from requesting adjustments for growth or unforeseen requirements.

Conclusion

There are definite opportunities to enhance The City's present budget process through multi-year budgeting, closer integration of business plans and performance measures with the budget, and expanded budget status reporting. Such changes could facilitate Council's budget and business plan reviews to be more strategic and policy focused, and could streamline the budget process as well.

Multi-year budgeting could be implemented effective with the 1999 Budget, thus reducing the detailed review required for the 2000 and 2001 budgets. In addition, setting targets for each responsibility centre in the Budget Guidelines would improve the efficiency of the process for the 2000 and 2001 budgets.

Government of Canada

Multi-Year Authority

The following is an extract from the 1999-2000 Main Estimates of the Government of Canada:

'Changes in 1999-2000 Main Estimates

Parks Canada is the first agency to be granted multi-year appropriations authority. This was reflected in Bill C-29, Chapter 19, Section (2) [4] which states: The unexpended balance of money referred to in subsection (1), appropriated by any Act of Parliament for the purpose of making operational expenditures of the Agency, lapses at the end of the fiscal year following the year in which the money was originally appropriated or at the end of any longer period that may be specified in the Act.

[4] Website http://www.parl.gc.ca/cgi-bin/36/pb_gob.pl?e
http://www.parl.gc.ca/cgi-bin/36/pb_gob.pl?e

Pursuant to this provision, the authority provided through the Program Expenditure vote for the Parks Canada Agency will not lapse until March 31, 2001. This will be reflected via an additional schedule to the Appropriation Bill.

The Parks Canada Legislation is Bill C-29, and the Revenue Agency Legislation is Bill C-43.'

New Brunswick

Following is an excerpt from the Financial Administration Act – Province of New Brunswick relating to the carry over of lapsed funds:

'37(1) The balance of an appropriation voted for a fiscal year that remains unexpended at

the end of that fiscal year shall lapse, except that charges relating to work performed, goods received, services rendered or liabilities incurred during the fiscal year may be made to that appropriation within three months after the end of the fiscal year.

37(2) Notwithstanding subsection (1) or any other provision of this Act, any or all of the

balance of an appropriation that remains unexpended at the end of the fiscal year for which it was voted may, with the approval of the Board, be expended in the ensuing fiscal year without further authorization by the Legislature.

1966, c.10, s.35; 1968, c.28, s.3; 1981, c.26, s.4; 1994, c.61, s.2.'

U.S. Experience

Information included in Appendix 3, regarding the States of Missouri, Washington and Virginia, is relevant to the discussion of multi-year appropriations.

Strategy 3

Physical Infrastructure Management System Framework

Guidelines
Performance Measures
Systems Strategy

January 5, 2000

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1. INTRODUCTION

Purpose of Physical Infrastructure Management System (IMS) Framework

The Alberta Government 1999-2002 Business Plan identified Capital Planning as one of four key cross-government initiatives with the following overall goal:

> ***"Implement initiatives to ensure effective, innovative capital planning and funding decisions."***

Following are specific goals to achieve the overall goal:

- Alberta will have effective and efficient infrastructure, and
- Alberta will have a financially stable, open and accountable government.

The purpose of the Physical Infrastructure Management System Framework is:

> ***"to improve planning and priority setting by implementing effective, independently verifiable infrastructure management systems within ministries, and jointly developing common key performance measures."***

This applies to expenditures on construction, reconstruction, rehabilitation and maintenance of physical infrastructure. The document:

- provides guidelines for development of IMS,
- defines key performance measures,
- defines a strategy for implementation of IMS, and
- reports on implementation of IMS for 1999-00.

Detailed Terms of Reference are included as Appendix 1.

Process

The sub-committee used the following process in developing the IMS framework, performance measures, and the systems strategy:

- Development of a workplan.
- Development of a draft IMS framework, based on the system developed to manage roads and bridges. The framework was modified and adapted to be applicable to other types of physical infrastructure.
- Development and revision of a tracking template to be used by Government ministries in monitoring the development of IMS systems.
- Development of common performance measures that could be used to track management of physical infrastructure in Government ministries. Ministries collected baseline data based on these measures for 1999-00.
- Development of a systems strategy for implementation of the systems strategy.

Membership of the sub-committee is included as Appendix 2.

2. GUIDELINES FOR PHYSICAL INFRASTRUCTURE MANAGEMENT SYSTEMS

Assumptions

- Ministries with responsibility for owned physical infrastructure will develop and maintain Infrastructure Management Systems (IMS) to support corporate decision-making.
- Ministries with responsibility for supported physical infrastructure will develop and maintain an IMS in co-operation with supported boards, agencies and municipalities.
- The size and sophistication of an IMS will depend on the type and value of the physical infrastructure being managed.

Components of an IMS

Physical infrastructure management is a process covering a broad continuum of functions, or sub-processes, such as construction, reconstruction, rehabilitation and maintenance, that work together to support the achievement of the strategic plans of the Government and supported boards, agencies and municipalities. A description of these functions is included in Section 2.1.

An IMS is a tool that assists with analysis to allow the long-term planning and programming (short-term planning) of major capital-related expenditures so that optimal use of available dollars can be achieved. It typically consists of the following components:

- data (inventory, attributes, condition, location, cost, capacity, and other data or information unique to the type of physical infrastructure)
- tools to access, display and analyze the data/information
- predictive capability
- "optimization" tools that enable strategic decision-making
- executive management reporting system.

Details of these components are included in Section 2.2.

Information on strategic service and functional needs may supplement data supplied by the IMS in making capital funding decisions. This is particularly relevant for physical infrastructure that is supported by the Government.

The following chart illustrates the use of data and tools to support the physical infrastructure decision-making process:

PHYSICAL INFRASTRUCTURE MANAGEMENT DECISION MAKING PROCESS

The following chart illustrates the use of data and tools to support the physical infrastructure decision-making process:

PHYSICAL INFRASTRUCTURE MANAGEMENT DECISION MAKING PROCESS

Key Features

The technology supporting an IMS for physical infrastructure may be as simple as a spreadsheet or packaged software, or may be supported by state of the art technology. Regardless of the level of sophistication, an IMS should have the following features:

- transferable or portable; a generic system that can function across an organization
- scaleable; can be easily expanded to accommodate more inventory without significant rework
- integrated; it is not necessary to have a separate system for each type of physical infrastructure
- independently verifiable; IMS information corresponds and can be linked to data in other accounting and costing systems
- common/linkable IT architecture; enables access by a variety of Government users and stakeholders.

Benefits

Physical infrastructure management enables:

Strategic Decision-making

- determining the right treatment at the right time
- determining, in any given year, the funding levels required either to maintain physical infrastructure at a known or desired level of service; or to expand, reconstruct or add to the inventory
- prioritizing work requirements and allocating funds to achieve overall goals and objectives
- allowing for "what if" analysis, e.g. budget constraints
- optimizing expenditures among various physical infrastructure components or types to get the best overall value

Enhanced Reporting

- providing staff, outsourcing partners and other stakeholders, with direct access to data/information
- allowing managers to monitor established performance measures for physical infrastructure on an ongoing basis

Implementation of IMS

Successful implementation of an IMS for physical infrastructure should include the following steps:

Planning

- Executive support for the project
- Involvement of key users and stakeholders at an early stage in the project
- Establishing IMS performance goals that link to strategic goals
- Re-engineering business processes, keeping information technology (IT) in mind as a key enabler
- Developing an IT architecture that enables access by a variety of users and stakeholders
- Doing a systems analysis before developing IT architecture
- Preparing a detailed benefit cost analysis
- Establishing an external "expert" quality assurance team

Implementation

- Involvement of key users and stakeholders in system development
- Establishing definitions of data elements that are used consistently by various users and correspond to performance measures used in the business plan.
- Defining roles, responsibilities and processes that will assure currency and accuracy of the data. Individuals should be identified to:
  - manage the data collection process on a routine basis
  - update the data
  - validate the data and information and ensure that it reconciles to the accounting system
  - provide technical support for users

2.1 PHYSICAL INFRASTRUCTURE MANAGEMENT PROCESS

Following is a description of the sub-processes involved in physical infrastructure management:

Planning

- The process of setting goals and objectives and determining the actions required to attain them. This involves examining current physical infrastructure conditions, forecasting future demands and recommending the staging of necessary projects over a period of 6 years or more.

Programming/Short-term Planning

- The continual process of matching identified projects with available resources to meet organizational priorities, objectives and goals over a given period (usually 5 years).

Budgeting

- The process of quantifying immediate objectives and plans for operating and financing the physical infrastructure needs through the fiscal year, and perhaps within the three year business plan.

Preliminary Functional Design/Functional Programming

- The process of determining the type and quality of design work required to address the needs of a particular project. This may include detailed investigative studies directed to resolving a specific problem, need, or deficiency.

Design

- This activity is project specific; the ultimate outcome is design documents for the enhancement of physical infrastructure.

Construction/Reconstruction

- The process of converting a design into physical reality. This includes the managing and monitoring of contracts to ensure that project is completed as specified, and that quality assurance is done.

Physical Infrastructure Operations (Rehabilitation and Maintenance)

- The actions or processes, such as maintenance and preservation, used to facilitate the objectives served by the physical infrastructure and to ensure that the physical infrastructure achieves its planned useful life.

Monitoring

- The process of collecting field inventory, condition and usage data about the physical infrastructure.

Evaluation

- The process of analyzing and interpreting the significance of the data collected through monitoring against specific performance indicators.

Budget Control

- The process of measuring, predicting and correcting organizational performance to ensure that financial objectives are realized.

2.2 COMPONENTS OF AN IMS FOR PHYSICAL INFRASTRUCTURE

An infrastructure management system for physical infrastructure (IMS) provides the tools that serve the infrastructure management process. The basic elements of an IMS are described as follows. **It is not essential that all of these elements be fully automated**.

Integrated Data Repository

An integrated data repository is a database that contains all attribute data for the physical infrastructure and other related objects. The key is to design and implement a data model that is scaleable with all data objects and their relationships defined. This component of the system should not change for several years.

An IMS requires physical infrastructure data/information to be collected and stored in an organized manner. The following kinds of information are mandatory:

- Inventory; defines the type of physical infrastructure, e.g. hospital, school.
- Attributes; useful facts about the physical infrastructure, e.g. flat roof, asphalt surfaced parking lots, age, size, heritage significance.
- Condition; the condition of each attribute that may trigger future expenditures, e.g. condition rating of road.
- Location; the geographical/spatial location of the physical infrastructure, e.g. latitude/longitude, legal description, street address.
- Utilization and Capacity; data to measure the capacity of the facility or structure compared to the type and number of users, or other measure of utilization.
- Cost; updated unit costs for items related to maintenance, rehabilitation and reconstruction activities, historic costs, amortization.
- Supplementary data/information specific to the type of physical infrastructure, e.g. collision information for roads; functional condition of health facilities.

Tools to Access, Display and Analyze the Data

These might include:

- A common user interface; a user interface to the system that includes windows and other features, such as Internet and Intranet, that allow for easy manipulation of data/information. Usually this is the entry point into the system and as such should be common across the organization.
- A set of application services; these are specialized software programs that allow the users to undertake specific functions. These applications can be integrated (i.e. invisible to the users) if a proven corporate architecture is followed. These applications can be upgraded as necessary, without affecting the rest of the system.
- Legacy applications and data; these are systems that were developed several years ago. However, data related to the physical infrastructure are usually relevant.
- Migration components or links; these are small software programs designed to facilitate easy transfer of data/information from the legacy systems to a new corporate data repository.
- A location referencing system such as Geographic Information System (GIS); a geographic interface with the data repository that allows the user to display information on a map. With the exception of the GIS, much of the task of accessing and analyzing data can be done with less technically advanced tools (i.e. a spreadsheet program) for those organizations with fewer resources. Even for the task of locating and referencing physical infrastructure inventory, a traditional mapping system can serve the purpose.

A Prediction Module

Rate of deterioration models can be developed using historical information and/or expert opinion. These curves can be used to determine when the physical infrastructure or any part will require treatment and at what cost. They can also be used to determine the effects of deferring treatments.

An Optimization Module

An IMS should be tied into the bigger process of strategic physical infrastructure management for its value to be optimized. This can be done through:

- Cost and benefit analysis – costs of building and maintaining physical assets measured against the objectives those assets are intended to serve.
- Life cycle cost analysis – analysis of costs and benefits over the reasonable expected life of a physical asset.

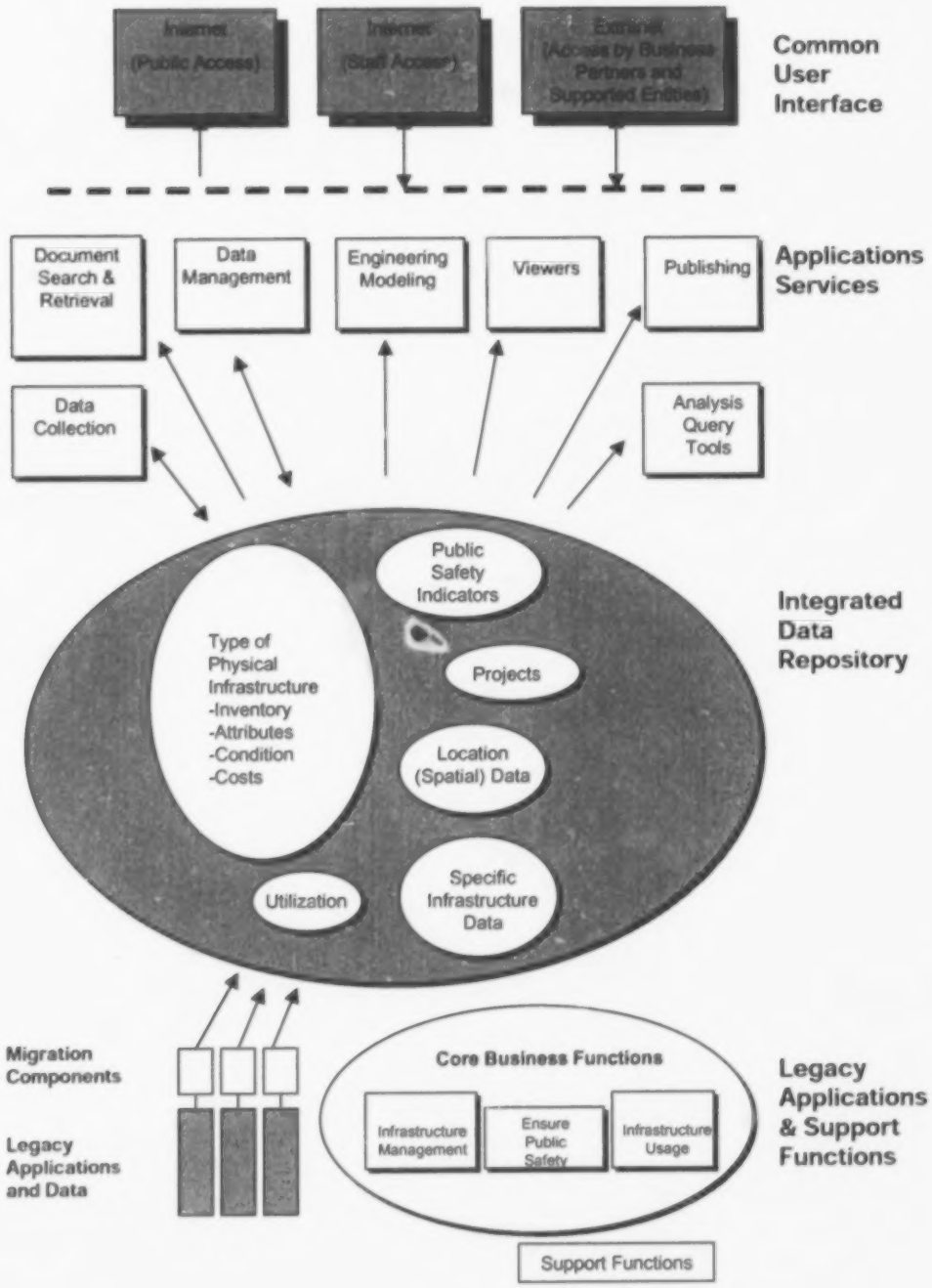
An Executive Management Module

A system that tracks organizational and physical infrastructure performance on an ongoing basis to enable timely executive decision-making.

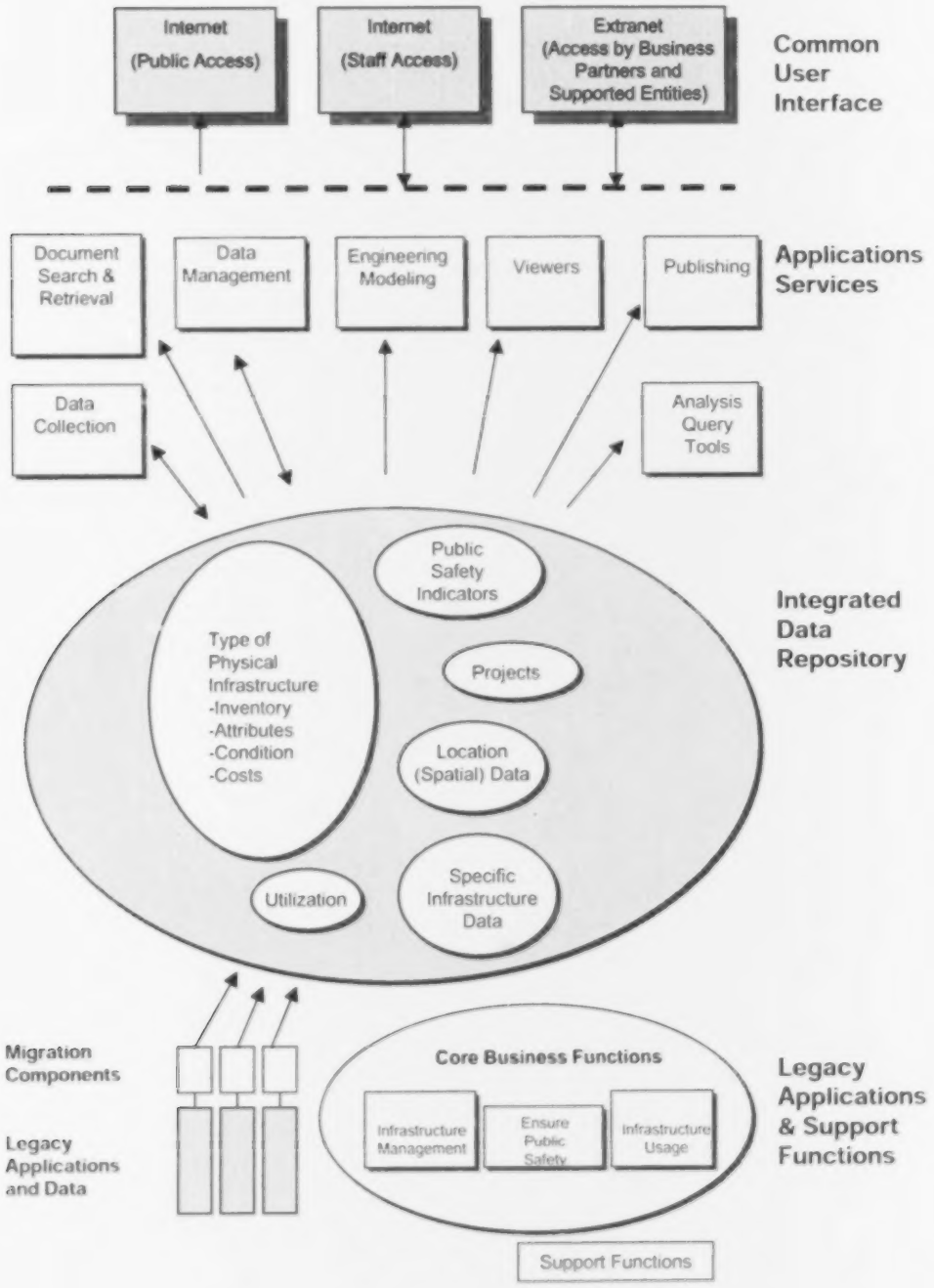
Typical IMS Layout

A conceptual view of an IMS application architecture within the context of the corporate architecture is shown on the following page.

Conceptual View of an Integrated IMS Architecture



Conceptual View of an Integrated IMS Architecture



3. PERFORMANCE MEASURES

Assumptions

- The same performance measures will be used across Government to report on the management of physical infrastructure.
- Ministries with responsibility for physical infrastructure will collect and report financial and statistical information on a consistent basis, recognizing differences in standards and criteria for different types and purposes of infrastructure.

Key Performance Measures

Following are the key performance measures to be used by all ministries with responsibility for owned or supported physical infrastructure:

Performance Criteria	Measure
Physical Condition	Percentage of physical infrastructure rated as being in acceptable condition.
Utilization	Percentage of physical infrastructure for which utilization level is within targeted capacity.
Functional Adequacy	Percentage of physical infrastructure that provides acceptable functional service.

Short-term Performance Measures

The following measures are to be used for the next 3 years:

Performance Criteria	Measure
Progress in implementing infrastructure management systems	Percentage of annual capital expenditures on physical infrastructure supported by a comprehensive IMS.
Success in disposing of surplus inventory of physical infrastructure	Proceeds from disposal of surplus inventory of physical infrastructure.

Further details on each of the key and short-term performance measures are included in Attachment 3.1.

Following is preliminary baseline performance data for the key performance measures for 1999-2000 for owned infrastructure.

Baseline Performance Data for Owned Infrastructure
1999-00 [1]

Type of Infrastructure	% of Total Infrastructure	Notes	Physical Condition: % Rated as Acceptable	Notes	Utilization: % Utilization within Target Capacity	Notes	Functional Adequacy: % Providing Acceptable Service	Notes
Gov't Owned Buildings	13%	2	97%		83%	3	68%	4
Primary Highways	51%		94%	5	95%	6	87%	7
Bridges and Structures	5%		85%		91%	6	93%	
Water Mgmt. Infrastructure	19%		96%		88%	8	99%	
Aggregated Infrastructure	88%	9	94%		92%		87%	

Notes:

1. Measures are based on replacement costs of 88% of the total government owned infrastructure.
2. Includes all buildings over 1000 m^2, including government owned hospital buildings.
3. Utilization rate is the ratio of allocated space over usable space. Target capacity is 75-100% utilization.
4. Assessment of whether buildings meet program/location requirements.
5. % of the road system that has an 'International Roughness Index (IRI)' of 2.69 or lower.
6. % of bridge and road system with level of service B or better.
7. % of provincial road system that meets acceptable pavement widths, is road ban free and does not have speed zone restriction due to physical constraints.
8. Utilization is only reported for AENV Main Canal Headworks Systems which represent 70% of the infrastructure in this category. The utilization capacity represents only the Irrigation Districts use of water supplied by the Headworks Systems and does not take into account other uses of water supplied by the Headworks System (e.g. domestic/industrial water supply, recreational/habitat enhancement use) which, if included, would increase utilization capacity. Utilization is not a relevant measure for other types of non-Headworks water management structures (e.g. flood control, lake stabilization structures).
9. Measures are weighted based on replacement value of each type of infrastructure. Measures are not available for the remaining 12% of owned infrastructure.

Management Level Performance Measures

Following are measures that are not included in the key measures but could be used to provide more detailed management information, if required. These would not be included in the Corporate Capital Overview or Government Business Plan.

Performance Criteria	Measure
Health and Safety	Percentage of physical infrastructure rated as being in acceptable condition with respect to health and safety.
Useful Life	Percentage of physical infrastructure within estimated useful life.
Operating Efficiency	Annual operating costs per unit (e.g. cost per square metre, cost per kilometre)
Service Quality	Percentage of physical infrastructure that provides satisfactory service (e.g. absence of wheel rutting and potholes, comfortable building environment).

3.1 COMMON PHYSICAL INFRASTRUCTURE PERFORMANCE MEASURES

Key Performance Measures

Performance Criteria
Physical condition

Measure
Percentage rated in acceptable condition, which includes 'fair' and 'good' condition on a 3-point scale of 'poor', 'fair', 'good'.

Rationale
Current physical condition is a critical factor involved in the decision to reconstruct, rehabilitate and maintain infrastructure.

Scope
Includes:

- current physical condition of infrastructure based on established standards for that particular type of infrastructure, e.g. load bearing capacity, sound/stable foundation, and
- compliance with health and safety standards, e.g. fire regulations, ventilation system.

Methodology
The physical condition of infrastructure will be rated based on a common rating scale (i.e. poor, fair, good) with 'fair' and 'good' rated as 'acceptable'. Established infrastructure-specific standards will be used as the basis for rating physical condition.

Baseline year will depend on the most recent condition assessment data. The target will be based on the business planning document.

Following is a more detailed description of how these definitions have been applied for owned infrastructure for 1999-00:

Government-Owned Buildings

Good Adequate for intended use and expected to provide continued service life with average maintenance.

Fair Components are aging and nearing the end of their life cycle requiring additional expenditures for renewal or refurbishing.

Poor Requires upgrading to comply with minimum codes or standards and deterioration has reached the point where major repairs or replacement are necessary.

This measure reflects the current condition rating of all buildings (344) in the inventory of 1,000 m^2 or greater which represents 80% of total owned space. The condition rating of smaller buildings (2,156) is expected to be proportional to the condition rating of the larger buildings which have undergone extensive condition surveys.

Primary Highways
Percentage of provincial road system with an International Roughness Index (IRI) of 2.69 or lower.

Bridges and Structures
Percentage of bridges and bridge size culverts with a structural condition rating better than 40%.

Water Management Infrastructure

Good Ranging from new or 'like new', requiring minimal maintenance; to fully operational and requiring normal maintenance.

Fair Operational but requiring considerable ongoing maintenance.

Poor Ranging from operational, with excessive ongoing maintenance, and failure may be possible during a major event; to not operational, or failure may be imminent or occurred.

Target and Results

Percentage of Infrastructure Rated as 'In Acceptable Physical Condition'

Owned Infrastructure
1999-00

Type	*Notes*	Replace-ment Value ($ Million)	Baseline (%)	Results (%)	Target (%)
Government-Owned Buildings	*1*	3,000	97%		
Primary Highways		11,600	94%		
Bridges and Structures		1,100	85%		
Water Management Infrastructure		4,300	96%		
Heritage Collections		300	n/a		
Exhibits and Interpretive Infrastructure		28	n/a		
Other		2,459	n/a		
Total - Owned Infrastructure		**22,787**			
Aggregated Infrastructure	*2*		94%		

1 Excludes government buildings under 1,000 m^2. Replacement cost is based on $1,650/$m^2$.
2 Measures are weighted based on replacement value of each type of infrastructure, for which baseline data is available.

Key Performance Measures

Performance Criteria
Utilization level

Measure
Percentage of infrastructure whose utilization varies from targeted capacity.

Rationale
Intention of the measure is to determine the number of facilities that are relatively fully utilized. Significant over-utilization or underutilization may indicate the need to construct, reconstruct, rehabilitate, or close facilities.

Scope
Includes measures of actual and targeted utilization of facilities or structures, e.g. percentage occupied, number of cars per lane kilometre, volume of water.

Methodology
Utilization level is the percentage of the replacement value of physical infrastructure that is utilized within the targeted capacity. Targeted capacity is different from design capacity as expansions/redesign may have adjusted available service capacity. Targeted capacity may differ from 'rated capacity' as a result of program decisions as to how the facility is to be used.

Each Ministry will develop measures of target and actual utilization that are appropriate to the use and type of infrastructure.

Baseline year will depend on the most recent utilization assessment data. The target will be based on the business planning document.

Following is a more detailed description of how these definitions have been applied for owned infrastructure for 1999-00:

Government-Owned Buildings
- Buildings which are utilized between 75-100% are within target capacity.
- Buildings which have greater than 100% or less than 75% are underutilized.

Scope
- All Infrastructure-owned buildings with an area over $100m^2$ are included.
- Government-owned health facilities are included.

Methodology
- Utilization rate is the ratio of allocated space to usable space.

Primary Highways, Bridges and Structures

- Measure is the percentage of road system with Level of Service B or better.

Water Infrastructure

- Target capacity is 100%. The measure is the number of irrigated acres as a percentage of the irrigation limit.

Target and Results

Percentage of Infrastructure Whose Utilization is Within Targeted Capacity

Owned Infrastructure
1999-00

Type	*Notes*	Replace-ment Value ($ Million)	Baseline (%)	Results (%)	Target (%)
Government-Owned Buildings	*1*	3,000	83%		
Primary Highways		11,600	95%		
Bridges and Structures		1,100	91%		
Water Management Infrastructure	*2*	2,980	88%		
Heritage Collections		300	n/a		
Exhibits and Interpretive Infrastructure		28	n/a		
Other		3,779	n/a		
Total - Owned Infrastructure		**22,787**			
Aggregated Infrastructure	*3*		92%		

1 Excludes government buildings under 1,000m^2. Replacement cost is based on $1,650/$m^2$.
2 Utilization is only reported for AENV Main Canal Headworks Systems which represent 70% of the infrastructure in this category. The utilization capacity represents only the Irrigation Districts use of water supplied by the Headworks Systems and does not take into account other uses of water supplied by the Headworks System (e.g. domestic/industrial water supply, recreational/habitat enhancement use) which, if included, would increase utilization capacity. Utilization is not a relevant measure for other types of non-Headworks water management structures (e.g. flood control, lake stabilization structures).
3 Measures are weighted based on replacement value of each type of infrastructure, for which baseline data is available.

Key Performance Measures

Performance Criteria
Functional Adequacy

Measure
Percentage of infrastructure that provides acceptable functional service.

Rationale
Infrastructure may be in good physical condition with sufficient available capacity to meet demand, but poor physical layout or inefficient design may reduce operational usefulness or efficiency.

Scope

- Assessment of whether infrastructure is able to meet program requirements or provide an adequate level of service. Poor physical layout (i.e. ergonomics), inefficient design (i.e. high operating costs), and converted use facilities may contribute to functional inadequacies.
- Includes locational suitability and requirements for new facilities to meet program requirements or population growth. For example, poor location may result in underutilization.

Methodology
Assess the capability of facilities to meet current workflow design performance standards or program delivery needs, including locational suitability, rated as Acceptable/Unacceptable.

Baseline year will depend on the most recent functional adequacy assessment data. The target will be based on the business planning document.

Following is a more detailed description of how these definitions have been applied for owned infrastructure for 1999-00:

Government-Owned Buildings

Performance Measure

▫ Buildings that meet current or anticipated functional program	Acceptable
▫ Buildings that do not meet functional program requirements	Unacceptable

Scope
Assessment of whether buildings meet program/location requirements.

Methodology

- Assessment of functional adequacy is based on the knowledge and discretion of Infrastructure staff in consultation with program departments.

Primary Highways

Measure is the percentage of the provincial road system that meets acceptable pavement widths, is road ban free and does not have speed zone restrictions due to physical constraints.

Bridges and Structures

Measure is the percentage of bridges and bridge size culverts with a sufficiency rating of 40% or better.

Water Management Infrastructure

- Water Management Infrastructure that does meet current Dam and Canal Safety Guidelines or is in an appropriate location or has adequate water supply. — Acceptable
- Water Management Infrastructure that does not meet current Dam and Canal Safety Guidelines or is in a poor location or lacks water supply. — Unacceptable

Target and Results

Percentage of Infrastructure that Provides Acceptable Functional Service

Owned Infrastructure
1999-00

Type	*Notes*	Replace-ment Value ($ Million)	Baseline (%)	Results (%)	Target (%)
Government-Owned Buildings	*1*	3,000	68%		
Primary Highways		11,000	87%		
Bridges and Structures		1,100	93%		
Water Management Infrastructure		4,300	99%		
Heritage Collections		300	n/a		
Exhibits and Interpretive Infrastructure		28	n/a		
Other		2,459	n/a		
Total - Owned Infrastructure		**22,787**			
Aggregated Infrastructure	*2*		87%		

1 Excludes government buildings under 1,000 m^2. Replacement cost is based on $1,650/$m^2$.
2 Measures are weighted based on replacement value of each type of infrastructure, for which baseline data is available.

Short-term Performance Measures[5]

Performance Criteria
Progress in implementing infrastructure management systems.

Measure
Percentage of annual capital expenditures supported by an IMS.

Rationale
Monitors the status of ministry development and implementation of a comprehensive IMS for capital managed by the department.

Methodology
Percentage based on annual Government spending on owned and supported infrastructure supported by a substantially completed (at least 70%) comprehensive IMS.

Target and Results

See Strategy 3, Section 5, for details of targets and results for 1999-00.

Details of the IMS systems development and performance measures are included as Attachment 5.1.

[5] This measure will be discontinued once all ministries have completed the implementation of an IMS.

Short-term Performance Measures

Performance Criteria
Success in disposing of owned surplus inventory[6].

Measure
Proceeds from sale of owned surplus inventory.

Rationale
This measure provides information on revenue generated from disposal of owned surplus inventory that meets criteria for disposal, as detailed in Strategy 4B (Framework for Alternate Uses and Divestiture of Physical Infrastructure).

Methodology
Measure only includes proceeds from sale of owned surplus inventory by Alberta Infrastructure. Properties that are disposed of by transferring them to other jurisdictions are not included in the measure.

Target and Results

Proceeds from Sale of Owned Surplus Inventory

	99-00		00-01		01-02	
	Results	Target	**Results**	Target	**Results**	**Target**
Buildings						
Land						
Total		**$35 m**		**$35 m**		**$30 m**

[6] Measure to be discontinued once ministries have completed significant disposal of identified surplus assets.

4. INFRASTRUCTURE MANAGEMENT SYSTEMS STRATEGY

Assumptions

- Electronic infrastructure management systems are needed to effectively manage government's owned and supported physical infrastructure.
- Opportunities for sharing common systems between departments and stakeholder groups should be maximized.
- Electronic infrastructure management systems developed for owned infrastructure should be web-enabled and share a common IT architecture.

Systems Strategy

- The following systems have been identified as meeting the essential requirements of an IMS Framework. Ministries that are implementing an electronic infrastructure management system should evaluate the feasibility of using one of the following existing infrastructure management systems:

Category of Infrastructure	Name of Existing System
Water Management Infrastructure	Environmental Infrastructure Management System (EIMS)
Roads and Bridges	Transportation Infrastructure Management System (TIMS)
Buildings	❑ Recommended Action Plan (RAP) System ❑ Integrated Health Facilities Information System (IHFIS) ❑ Environmental Infrastructure Management System (EIMS)

In addition to the recommended systems, one commercial package was reviewed which met essential requirements for building inventory. A summary of existing departmental systems is included as Attachment 4.1. Details of these systems are included as Attachment 4.2.

- Prior to selecting a system, an analysis should be undertaken to determine the most cost-effective systems modifications that:
  - will meet the needs of different users with responsibility for administering similar types of infrastructure, and
  - share a common IT architecture.

- Existing systems will be enhanced or replaced over time to keep up with changing technology, to meet user needs, and to meet the requirements of the IMS Framework. The objective of these enhancements and replacements should be to move to a few common systems for each type of infrastructure, that can meet the requirements of both government ministries and of boards, agencies, and municipalities, that have responsibility for administering government-funded infrastructure.

- As a first priority, systems for government-owned infrastructure should be upgraded as necessary to report:
  - the inventory and replacement value of owned infrastructure, and
  - condition rating, utilization, and functionality.

- Once systems are developed, a second priority should be to make them available to boards, agencies, and municipalities that are responsible for administering supported infrastructure.

DEPARTMENTAL INFRASTRUCTURE MANAGEMENT SYSTEM SUMMARIES

Agriculture, Food and Rural Development (AFRD)

Irrigation Works (Supported)

AFRD's infrastructure includes $1.6 billion worth of irrigation canals, reservoirs and control structures throughout southern Alberta. This infrastructure is owned and managed by 13 Irrigation Districts. As a direct result of a four-year initiative to study utilization, 100% of the infrastructure is recorded in a computerized GIS system. Condition ratings for approximately 10% of the infrastructure are recorded electronically. Additional attribute information is not captured on the system. Stakeholder participation is crucial in keeping the inventory current. An investment of approximately $250,000 is required to develop the required systems to determine condition rating and functional adequacy information. Annual maintenance costs would typically be 20% of this amount.

Infrastructure

Schools (Supported)

The replacement value of school facilities (not including post secondary) is estimated at $8.5 billion. Inventory information is 100% recorded electronically.

At the present time, no building condition information is available electronically. An investment of approximately $500,000 is required to develop the required systems plus an annual expenditure of $100,000 to maintain these systems.

Roads and Bridges (Owned)

The replacement value for primary highways is estimated at $11.6 billion. The replacement value for bridges is $1.1 billion. There is also $194 million in gravel pit infrastructure (not including land value). All of these physical infrastructure elements are recorded electronically on isolated stand-alone computer systems.

Alberta Infrastructure's ongoing Integrated Highway Infrastructure Management System (IHIMS) development project is replacing the old information management systems with a single comprehensive integrated, modular, web enabled, database-oriented infrastructure management system. The estimated budget for the IHIMS is approximately $14 million, of which, some $7 million has been expended to date. The project is expected to be completed in 2002.

Buildings (Owned)

The replacement value is estimated at $3.5 billion. Inventory information is 100% recorded electronically. Condition rating information is available for 80% of the inventory. Information is limited with respect to utilization and functionality. The systems require upgrading. An investment of $850,000 is required to complete these systems and $170,000 required for annual maintenance.

Health Facilities (Supported)

The replacement value is estimated at $6.3 billion. Inventory information is 100% recorded electronically. Most condition information is recorded electronically. Information is limited with respect to utilization and functionality. Approximately $100,000 enhancement is required to develop the required systems plus annual maintenance costs of $20,000.

Learning

Post-Secondary Institutions (Supported)

The replacement value of post-secondary institution facilities is estimated at $3.9 billion. Approximately 80% of this supported infrastructure is recorded electronically by 18 board-governed institutions. At the present time, although condition information is available at the individual institutions electronically, a central linked system has not been established.

An investment of approximately $500,000 would be required to develop a centralized system and bring institutional systems into a common framework. An investment of $200,000 would be required on an annual basis to maintain these systems.

Community Development

Special Sites (Owned)

These special sites include Heritage Buildings, Collections and Display infrastructure that are valued at over $328 million. Only 70% of the inventory is recorded electronically. These records are primarily limited to descriptive, location and significance information. Some condition information is recorded. Information is limited with respect to utilization and functionality. Existing database systems are typically stand-alone and are found across the organization. Currently there is no corporate level system. Further system development will focus on gathering and incorporating performance data and on broadening accessibility to data both at the business unit and corporate level. The diversity of data sets involved and the limitations of existing hardware will add to project costs.

A detailed needs assessment to determine project costs is underway.

Seniors and Social Housing (Owned and Supported)

This infrastructure has a replacement value of $1.519 billion (owned) and $300 million (supported). It is managed through the Housing Inventory Systems (HIS). At present, 100% of the owned inventory and 80% of the supported inventory is recorded on electronic system, with condition assessments. The system requires minimal upgrading, including the provision of a GIS component. It is estimated that these upgrades will cost $20,000. Total development costs for the system were $650,000, exclusive of hardware. Its annual maintenance cost is $40,000. It is expected that data input will continue to become the responsibility of stakeholder groups.

Environment (Owned)

This infrastructure includes Water Management Infrastructure (dams, canals and canal structures, flood, drainage and erosion control and habit protection structures) Park facilities, and Land Forests facilities with a replacement value of $4.7 billion. At the present time, 20% of the inventory is recorded on electronic systems. Approximately 20% of the inventory has condition ratings tracked electronically. A new Environment Infrastructure Management System (EIMS) is currently under development with the total estimated cost of $1.5 million including about $600,000 for inspections and data collection. It is estimated that $700,000 is required to complete the system of which $150,000 is estimated for inspections and data collection. The estimated costs for the next fiscal year (2000/2001) are $400,000 of which $100,000 is for inspections and data collection. $65,000 is the estimate for annual operating costs.

PHYSICAL INFRASTRUCTURE RELATED SYSTEMS
GOVERNMENT DEPARTMENTS

Infrastructure (PWSS)									
Management Systems Capital Assets (MSCA)	Innovation & Science	Provides end users with on-line facilities to manage capital assets (buildings, land, highways, bridges, dams, equipment, computers etc.). Heavily integrated with DFS/CFS accounting. Good inquiry and reporting facilities.	Buildings & Capital Assets	Owned & Supported	Inventory		Brian Fisher	Linda Purgas	Active
Property Data Query (PDQ)	PD	This is a data warehouse for information related to buildings, trailers, parking lots and sites. Data is captured from several systems both in PWSS and outside schools & hospitals.	Buildings	Owned & Supported	Inventory	Municipal Affairs	Lynn Benn	Bob Dyer	Active
Location/Electoral/MD System (LED)	PD	Standard tables system with code reference to Electoral constituencies. These tables standardize the Electoral location information for other PWSS systems. The tables include locations linked to Electoral Districts and to Municipal boundaries.	Buildings	Owned & Supported	Inventory	Public	Ann Corbett	Bob Dyer	Active
Schools Facility Information System	PD	Records inventory, grants and utilization of schools	Buildings	Supported	Inventory	School Board	Allan Philips	Bob Dyer	Redevelop
Property Data System (PDS)	PD	Assigns unique identifier for the inventory of owned and leased Government of Alberta properties (trailers, sites, buildings, parking etc.). Includes detailed space measurements, drawing index and employee allocation.	Buildings	Owned & Supported	Inventory	Other Government Depts.	Lynn Benn	Bob Dyer	Rewrite
Land and Property Data (LAPD)	PSM,Realty	This is an inventory of all government lands acquired, held or being disposed of by PWSS. Includes program lands, sales, purchases, trades and financial details associated. It is used to evaluate lease build options influenced by various factors.	Land, Building	Owned	Inventory, Condition, Analysis/Planning Project Tracking		Dennis Mitchell	Judy Mehr	Active
Lease Information System (LIS)	PSM, Realty	Lease Inventory module documents the executed lease document including all terms and options. It is used to report on upcoming expires and options. Lease Status module tracks the lease negotiation process - new leases, terminations, etc.	Buildings	Owned	Administration		Dennis Mitchell	Judy Mehr	Replace
Integrated Health Facility Information System (IHFIS)	PD	This is distributed to Regional Health Authorities to use to assess the condition of their facilities and be able to prioritize their infrastructure maintenance and enhancement.	Buildings	Supported	Condition, Analysis/Planning	Regional Health Authorities	Alan Wilde	G.Thompson	Active
Computerized Maintenance Management System (CMMS)	PSM	Prepares and tracks the Preventive Maintenance task schedule for equipment in buildings, parking lots, trailers and sites. Keeps an equipment inventory and condition log. This system is used by Building Operators.	Buildings	Owned	Condition	Maintence Contractors	Terry Bociurkiw	Judy Mehr	Active

Facility Evaluation System (FES)	PSM	FES contains the building evaluations of over 200 buildings. These evaluations are done by in-house and contracted resources. A history of building condition and other facility information is included in FES. Related maintenance plans in RAP.	Buildings	Owned	Condition		Ron Taylor	Judy Mehr	Active
Recommended Action Plan (RAP)	PSM	Tracks all planned maintenance projects, budgets, schedules, forecasts and paid to date information.	Buildings	Owned	Analysis/Planning, Project Tracking		Terry Bociurkiw	Judy Mehr	Active
Project Management and Planning Tool (PROMPT)	PSM Realty, IMTS Inovation & Science	Provides the Telecom and IT divisions with a tool to entar details for all requested projects and produces comprehensive""Request for Approval""documents.Upon approval the system provides a method of tracking the implementation budgeting and forcasting	Buildings	Owned	Analysis/Planning, Project Tracking	RHA	Dennis Mitchell	G.Thompson	Active
Space Utilization Management System (SUMS) Space Planning System (SPS)	PD	This system is a fast track method of ensuring efficient accommodation, identifying surplus space (from downsizing and under-utilization) and reducing our facility maintenance costs. This system displays data from Land Planning System, Lease Inventory	Buildings	Owned	Analysis/Planning, Project Tracking	Maintence contracts Schools	Lynn Benn	Bob Dyer	Replace
Unapproved/Approved Project System (UPS/APS)	PD	Record and manage projects in Property Development. 2 sub systems - UPS manages unapproved projects while APS manages approved projects. Financial data is both data entered (for Treasury Branch and downloaded from FPS for Capital and Health projects)	Buildings	Owned & Supported	Analysis/Planning, Project Tracking		Ann Corbett	Bob Dyer	Replace
Construction Analysis Program (CAP)	PD	This system allows construction dollars to be escalated or de-escalated depending on economic trends to facilitate forecasting and budgeting of capital projects. This system extracts information from CCOAST system	Buildings	Owned & Supported	Project Tracking, Analysis & Planning		Ann Corbett	Bob Dyer	Retired
Projects Module (IMAGIS)	Information Systems		Buildings		Project Tracking				On-Hold
Contract Management System (CMS)	F&A	Multi-year encumbrance/commitment tracking: Contracts, Recurring Payments, TPC (Total Project Cost). Change/charge order processing Tender;draws financials from IMAGIS	Buildings	Owned	Administration		Bonita Cheong	Dale Pratt	Active
Facility Business Information System (FBIS)	PSM	Includes portfolio and expenditure summaries;draws financials from IMAGIS	Buildings	Owned	Administration		Sylvia Rohachuk	Judy Mehr	Active
On-line Surplus Sales Information System (OSSI)	Supply Division	A bulletin board system for Surplus Declaration Officers and their surplus agents to enter surplus material details for recycling and disposal. Used by all Government Departments.	Buildings	Owned	Administration	Other Depts.	Zainul Rajan	G.Thompson	Active
Consultant Selection and Reporting System (CSRS)	PD, PSM	Consultant approvals and recording previous commissions.	Contracts	Owned	Administration		Ann Corbett	Bob Dyer	Active
Energy Consumption Recording System (ECRS)	PSM	Records and reports energy cost and consumption of all owner buildings. To be replaced as part of the electronic invoicing system	Buildings		Administration		Sylvia Rohachuk	Judy Mehr	Replace

Contractor Resume Information and Selection Program (CRISP)	PD	This system is a computerized system of maintaining information on contractors and projects. It also provides a process to select contractors to be invited to submit tenders on projects. Various queries, reports, forms and mailing labels can be produced	Buildings	Owned	Administration		Ann Corbett	Bob Dyer	Replace
InAir	Corp. Serv.		Aircraft	Supported	Operation	Other Depts.		Judy Mehr	In Use
Infrastructure (T&U)									
Infrastructure Management System	Regional Services	IMS has various modules to manage the day to day operations and prioritization of roads and bridge projects.Parts under development	Roads, Bridges and appurtence infrastructure	Owned	Inventory, Condition and Planning		Jane Stoeck	Rod Siddowsky	Active
Integrated Grants Information System	Regional Services	Tracks Grant money distributed to Muni's for Infrastructures	Grants	Supported	Project Tracking		Janice Lee	Leo Blais	Active
Construction Program Management System (CPMS)	Regional Services	Construction Program Management System (CPMS) is an on line interactive corporate information system. Purpose: CPMS assists in the compilation and management of all construction project information from the development of 10 year, 5 year, and annual co	Projects	Owned	Project Tracking		Philip Chan/Rick Turcotte	Lee Pollard	Active Planned replacement system on hold
Maintenance Contract Management system	Regional Services	Management of Highway Maintenance Contracts. Generates and tracks work orders for Highway maintenance work	Money and materials	Owned	Project Tracking/Admin		Rick Kowalik	Greg Yaremko	Active
Contracts Information System (CIS)	Regional Services	Powerbuilder App that is the primary tool for scheduling of highway const. tenders, validation of bids and preparation of contract documents, sale of documents and tenders and contract administration functions	Tenders, contracts and contractors	Owned	Project Tracking/Admin		Peter Kwan	Greg Yaremko	Active
Strategic Systems Plans (SSP) Report due September 27, 1999	Regional Services	Proposed program delivery system. To manage information and functions associated with programs, projects, agreements, contracts, grants and payments.	Projects	Owned	Project Tracking, Administration		Allan Humphries	Teresa Dixon	Shelved
Consulting Engineer Resource Information System	Regional Services	Tracks Engineering Costs of Road and Bridge Infrastructure Work	Money for services	Owned	Administration		Veronica Roland	Lee Pollard	Active
Stakeholder Management System	Regional Services	Dangerous Goods Stakeholders List Fire Departments, Chemical Companies Transport Companies. Replace old Facit./Contacts/Insp. Unix Databases	Partners	Owned	Administration		Shaun Hammonnd	Brian Duchene	Active
Gravel Stockpile Inventory	Regional Services	Gravel Stockpile Inventory and Usage	Aggregate	Owned	Administration		Sylvia DeBruyn	Lee Pollard	Active
Lands and Aggregates Information System (LAIS)	Regional Services	Track Aggregate Usage and Land/Gravel Pit Development Agreements/ROW/Borrow Agreements/Reclamation liabilities	Gravel Pits , land & ROW	Owned	Administration		Bruce Blue	Lee Pollard	Active
Dangerous Goods Facilities (FACIT)	Regional Services	Records facilities (buildings) and organizations involved in shipping and transporting dangerous substances; Used in emergency response situations to gather information about a company such as names and contact phone numbers.	Private sector dangerous goods sites	Owned	Administration		Shaun Hammonnd	Lee Pollard	Still Active

Environment									
Spatial Fire Management System (SFMS)	LFS	Pre-suppression support system which contains information of resources required for fire planning (initial data from other sources)	Air Tanker base, Fire Base, Roads, Water, etc.	Owned	Inventory	AENV, Fire Protection		Dana Morrison 913-0924	Active
Fires Information Resource Environmental System (FIRES)	LFS	Data System containing all Forest Protection business data at source	Facilities, Equipment, Aircraft ,Resource Location Data, etc.	Owned	Inventory,	AENV, Fire Protection		Jan Boehm 422-0240	Active use, Active Development
Office Inventory	ES, NRS	Database of Office equipment	Office equipment	Owned	Inventory	AENV		Ernest Wong 427-0569	n/a
Space Inventory	ES, NRS	Database of Office Space occupied by AE	Leased space & buildings	Owned	Inventory	AENV		Ernest Wong 427-0569	n/a
Operational Decision Support System	NRS	Supports the physical control of the Water Management operations at structure owned by the province	Water, logical location data (dam/ gates)	Owned	Inventory	AENV, Utility Companies, Irrigation Systems		Stephen Yeung 427-8803 Hamid Namsechi 427-9931	n/a
Action on Waste 1-800 Info Line	ES	Tracks recycle depots and alternate sources to get rod of solid waste	Building, Land	Owned	Inventory, Condition			Joe Tyalcic	Active
Inventory Management Information System (IMIS)	LFS	Records and Tracks all Inventory and equipment(no fixed assets)Active Development	Equipment, consumable supplies, Furniture	Owned	Inventory, Condition	AENV, Fire Protection		Jamie McQuarrie 427-6822	Active
Municipal Database System	ES	Stores Lab, operational, municipal water and landfill data	Buildings, waste facilities	Owned	Inventory Condition			G. Halina	Updating
Control System for Dams	NRS	to facilitate physical control of water management structures (ie Spillways, dams),Development Underway	Machinery, spillway gates, tunnel values, water levels	Owned	Inventory, Condition, Planning			Mikael Knutar 382-4001	Active
Infrastructure Management System	NRS, LFS, ES	Department wide tracking, decision making and reporting system for managing AENVowned physical infrastructure(developed in partnership with AI).Proposed later phases to include Maintenance Management Module and FMM.Includes Dams,Canals,Controls Structures	Water Management Buildings, Roads, Bridges, Air Facilities, Monitoring, Water & Wastewater	Owned	Inventory, Condition, Planning	AENV, AI	R. Sharp	R. Sharp	Developing
Quarries, Coal and Oilsands	LFS	Tracking related subsurface leases, costs, amendments, expiry and issuance	Companies, Land Description, Lease Identifiers, Product, etc.	Owned	Administration	AENV		Mary Christensen 415-4653	Active

Fish Culture Information System (FCIS) (Not Infrastructure related)	NRS	Maintains information about the hatcheries and the brood stations.	Fish stocking, production tracking, stocking locations, etc.	Owned	Administration	AENV		Jim Wagner 427-7959	Active Development Underway
IMAGIS (Not Infrastructure related at this time)	Finance	Departmental financial system which contains a variety of modules including inventory and asset management		Owned	Administration			Bill Wayman 427-9202 (Financial) Reiner Groeneveld 422-4721 (Human Res)	
Seed Inventory Management System (SIMS) (Not Infrastructure related)	LFS	Tracks inventory of Tree seed for Province Reforestation Nursery	Tree Seed	Owned	Administration	AENV, Fire Protection		Nathan Antoniuk 656-5055	
Enterprise System Management (Not Infrastructure related)	LFS	System containing information on LFS IT assets		Owned	Administration			Allen Nip 427-3543	
LSAS (Not Infrastructure related)		System contains information on Crown Land status and activities		Owned	Administration	AB Gov't		Roger Harris 427-3570	
GIIMPS (Not Infrastructure related)		System contains information on Agriculture land related activities i.e. Grazing Leases		Owned	Administration	AB Gov't		Roger Harris 427-3570	
ADEPT (Not Infrastructure related)		System will contain information on Industrial land related activities, i.e. Wellsite leases		Owned	Administration	AB Gov't		Roger Harris 427-3570	
Learning									
Financial Information Reporting System (FIRS)	Learning supports accountability	Database of capital asset information from post-secondary institutions (Colleges, Universities). Every major facility, renovation cost, replacement value, key dates entered by institution using FTP.	Building	Supported	Inventory, planning, analysis		Peter Malcolm 7-5633	Joe Vance	In use
Municipal Affairs									
Alberta Housing Information System (HIS)			Buildings						
Grants In Place of Taxes (GIPOT) Grant Management Application System (GMAS)	MSB	System administers the Grants In Place of Taxes on Crown Lands initiative	CROWN Land & Buildings	Owned	Administration	AB Gov't	Lou Espino 422-8056	Bill Dewar 415-2017	Active Development
Property Assessment Tax Municipal Affairs Equalized Assessment (MAAE)	ASB	System to calculate equalized assessment from which an education tax is derived	Assessment	Owned	Administration	AB Gov't	Pat Chelen 422-8406	Bill Dewar 415-2017	Active Development
Health & Wellness									
No Infrastructure related-systems (using IHFIS to extract Health Facilities' data)		See Intergrated Health Facilities Information System Under Infrastructure (PWSS)							

Alberta Agriculture, Irrigation Branch									
DDIT (District Data Input Tool)	IB (Irrigation Branch)	Tracks annual crop mix of all fields supported by irrigation systems.	Irrigation Systems Inventory	Supported	Information and Research Infrastructure	AAFRD. PFRA, AIPA	Wally Chinn (403) 381-5867	Arva Traynor (403) 381-5149	In Use
IIMS (Irrigation Management System)	IB (Irrigation Branch)	Spatially referenced drawings of all supported irrigation canals and structures, recently updated as a result of year 2000 review.	Irrigation Canal and related structures	Supported	Information and Research Infrastructure	AAFRD. PFRA, AIPA	Rod MacLean (403) 381-5152	Arva Traynor (403) 381-5149	
IRP	IB (Irrigation Branch)	Tracks detailed progress of approximately $23 million in annual canal rehabilitation projects.	Irrigation Canal and related structures		Administration Infrastructure	AAFRD. PFRA, AIPA	Len Ring Irrigation Secretariat (403) 381-5176	Arva Traynor (403) 381-5149	
Community Development									
Advance Ticket Management System (ATMS)	CFHR, PMA	Tickets school and facility bookings tracks utilization levels	Displays, etc.	Owned			Bruce McGillvery		
Collections Mangement System	CFHR, PMA	Used for collections management purposes	Collections	Owned			Bruce McGillvery		
Archaeological Sites Database	CFHR, PMA	Inventories all known archaelogical sites	Sites	Owned			J Damkjar		
Archaeological Permit Database	CFHR, PMA	Tracks archaeological permits used for site excavation	Sites	Owned			J Damkjar		
Archaeological Artifacts Databas	CFHR, PMA	Tracks archaeological permits used for site excavation	Collections	Owned			B. Dawe		
Virtual Collections	CFHR, HSS, UCHV	Artifact database	Collections	Owned			B. Manchuk		
GENCAT	CFHR Archives	Archived, historic records	Documentary Collections	Owned			I Jendjesky, Karen Mitra		
INMAGIC	CFHR Archives	Library Holdings	Library Holdings at Archives	Owned			W Magee		
GMIS	CFHR -AHRF	Buildings, structures, sites	Heritage Buildings and Sites	Supported			K Molchak		
Heritage Inventory Program (HIP)	CFHR - HSS	Buildings, structures, sites	Heritage Buildings and Sites	Owned and Supported			D Field		
Construction Services Project Summary	CFHR-HSS	Lists all current and backlogged Construction maintenance projects	Heritage Buildings and Sites	Owned	Project Tracking		G Duguay		Active

Department/System Name	Division	Purpose of System	Assets Type	Owned/ Supported	Function	Stakeholder	Business Contact	IT Contact	Status
Fish Culture Information System (FCIS) (Not Infrastructure related)	NRS	Maintains Information about the hatcheries and the brood stations	Fish stocking, production tracking, stocking locations, etc	Owned	Administration	AENV		Jim Wagner 427-7959	Active Development Underway
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Municipal Affairs									
Alberta Housing Information System (HIS)			Buildings						
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Property Assessment Tax Municipal Affairs Equalized Assessment (MAAE)	ASB	System to calculate equalized assessment from which an education tax is derived	Assessment	Owned	Administration	AB Gov't	Pat Chelen 422-8406	Bill Dewar 415-2017	Active Development
Health & Wellness									
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Department/System Name	Division	Purpose of System	Assets Type	Owned/ Supported	Function	Stakeholder	Business Contact	IT Contact	Status
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GMIS	CFHR - AHRF	Buildings, structures, sites	Heritage Buildings and Sites	Supported			K Molchak		
Heritage Inventory Program (HIP)	CFHR - HSS	Buildings, structures, sites	Heritage Buildings and Sites	Owned and Supported			D Field		
Construction Services Project Summary	CFHR-HSS	Lists all current and backlogged Construction maintenance projects	Heritage Buildings and Sites	Owned	Project Tracking		G Duguay		Active

Collections Management System	CFHR-RTMP	Mgt of palaeo collections	Palaeontological Collections	Owned		Research Staff, Visiting Scientists	Jackie Wilkie		
Library	CFHR-RTMP	Library and ARCHIVAL Holdings	Library and ARCHIVAL Holdings	Owned			Deb Lister		
Inventory of Cultural Facilities and Historical Resources	CFHR-HSS	Identifies ownership of property and buildings administered by the CFHR Division	Heritage Bldgs and Sites	Owned	Inventory		G Duguay		Active
Construction Services Project Schedule	CFHR-HSS	Tracks project schedules	Projects	Owned	Project Tracking		G Duguay		Active
Library	CFHR-RTMP	Library and ARCHIVAL Holdings	Library and ARCHIVAL Holdings	Owned			Deb Lister		
Exhibits	CFHR-RTMP	Gallery	Exhibits	Owned			Javier Palamino		
Exhibits	CFHR-RTMP	Gallery Text etc.	Exhibits	Owned			Kathryn Valentine		

5. IMS IMPLEMENTATION RESULTS

Following are the targets and results that were set out for 1999-00.

Target	Results
❑ Ensure 50 per cent of ministries have IMS systems in place or in development by year end.	❑ 75% of the ministries with responsibility for physical infrastructure have systems that are in place or in development.
❑ Use systems to support 75% of spending on owned infrastructure, 30% of spending on supported infrastructure by year end.	❑ In 1999-00, IMS systems support 80% of spending on owned infrastructure and 30% of spending on supported infrastructure.
❑ Develop 75% of measures by year end for inclusion in Overview in Spring, 2000.	❑ Baseline data has been collected for more than 75% of the owned infrastructure.

Details of the IMS systems development and performance measures are included as Attachment 5.1.

% of Budget Supported by an IMS

Owned Infrastructure
1999-00

DEPARTMENT/PROGRAM Calculation based on % of Budget supported by an IMS where development is at least 70% complete	Systems Development % COMPLETE	Program Budget 1999-00[1] ($ Million)	% of Budget Supported by IMS	Program Spending Supported[2] ($ Million)
Community Development				
-Social Housing	**90%**	**7.3**	**100%**	**7.3**
-Heritage Collections	**80%**	**5.5**	**50%**	**2.8**
-Exhibits and Interpretive Infrastructure	**80%**	**2.9**	**40%**	**1.2**
Environment				
-Water Infrastructure	30%	1.8	80%	
-Natural Heritage Sites (Parks)	10%	2.8	50%	
-Land and Forest Infrastructure	10%	0.02	30%	
Infrastructure				
-Government Facilities	**80%**	**29.0**	**80%**	**23.2**
-Water Infrastructure-large projects	30%	31.8	100%	
-Primary Highway Construction, Mtnce. & Rehab.	**100%**	**275.0**	**100%**	**275.0**
-Other Roads and Infrastructure	30%	11.1	0%	
TOTAL - Owned Infrastructure		**367.2**		**309.4**
			% of Program Budget Supported by IMS	**84%**

1 Excludes additional in-year funding.
2 Program budget multiplied by the % of budget supported by an IMS.

% of Budget Supported by an IMS

Supported Infrastructure
1999-00

Calculation based on % of Budget supported by an IMS where development is at least 70% complete	Systems Development % COMPLETE	Program Budget 1999-00[1] ($ Million)	% of Budget Supported by an IMS	Program Spending Supported[2] ($ Million)
Learning				
-Post Secondary	**80%**	**61.1**	**80%**	**48.9**
Agriculture, Food and Rural Development				
-Irrigation Rehabilitation	25%	17.2	0%	0.0
Community Development				
-Heritage Resources	**70%**	**2.0**	**50%**	**1.0**
-Social Housing	**75%**	**0.8**	**100%**	**0.8**
Infrastructure				
-Seniors' Lodge	**90%**	**16.2**	**80%**	**13.0**
-Cities Transportation Partnership	N/A	135.7	68%	
-Grants to Rural Municipalities	0%	52.0	0%	0.0
-Municipal Water/Wastewater Program	0%	19.0	0%	0.0
-Resource Roads/New Industry	0%	24.0	0%	0.0
-Secondary Highways	**100%**	**90.0**	**100%**	**90.0**
-Streets Improvement Program	0%	12.0	0%	0.0
-School Construction and Renewal	50%	140.0	25%	
-Health Care Facilities	**70%**	**115.0**	**50%**	**57.5**
TOTAL - Supported Infrastructure		**685.0**		**211.2**

% of Program Budget Supported by IMS	**31%**

1 Excludes additional in-year funding.
2 Program budget multiplied by the % of budget supported by an IMS.

Performance Measures - Baseline Data

Owned Infrastructure
1999-00

DEPARTMENT/PROGRAM	Estimated Infrastructure Replacement Value ($ Million)	Baseline Data Available	Replacement Value Reported ($ Million)
Community Development			
-Social Housing	1,519	no	0
-Heritage Collections	300	no	0
-Exhibits and Interpretive Infrastructure	28	no	0
Total	**1,847**		**0**
Environment			
-Water Infrastructure	4,300	yes	4,300
-Natural Heritage Sites (Parks)	381	no	0
-Land and Forest Infrastructure	44	no	0
Total	**4,725**		**4,300**
Infrastructure			
-Government Facilities	3,500	partial	3,000
-Water Infrastructure-large projects			
-Primary Highway Construction, Mtnce. & Rehab.	12,700	yes	12,700
-Other Roads and Infrastructure	15	no	0
Total	**16,215**		**15,700**
TOTAL - Owned Infrastructure	**22,787**		**20,000**
		% of Replacement Value Reported	**88%**

NOTE: Estimated Replacement Value for AI Water Infrastructure is included in value shown for AENV, which includes both large and small projects.

PHYSICAL IMS FRAMEWORK

Strategy 3

Improve planning and priority setting by implementing effective, independently verifiable **infrastructure management systems** (IMS) within ministries, and by jointly developing common key performance measures.

Targets

3a
- Identify components of an effective independently verifiable infrastructure management system (IMS).
- Ensure 50% of ministries have such systems in place or in development by year end.
- Use systems to support 75% of spending on owned infrastructure, 30% of spending on supported infrastructure by year end.

3b
- Identify common key performance measures by September 30, 1999.
- Develop 75% by year end for inclusion in Overview in spring, 2000.

3c
- Develop a strategy for review and co-ordination of government-wide infrastructure management systems.

Terms of Reference

IMS Guidelines and Performance Measures

- The inter-departmental Task Team shall ensure that each department gives a high priority to the internal capital planning and priority setting systems upon which department and corporate priorities are based.
- The Task Team shall:
  - assist departments by issuing guidelines for physical infrastructure management systems (IMSs) by September 30, 1999,
  - ensure that 50% of departments have, or are putting in place, IMSs by March 31, 2000,
  - ensure that IMSs are used to support 75% of government spending on owned physical infrastructure and 30% of government spending on supported physical infrastructure by March 31, 2000,
  - identify key common performance measures by September 30, 1999,
  - develop 75% of the identified measures by March 31, 2000.

- And shall report the success of meeting these targets in the Corporate Capital Overview in spring, 2000.

Infrastructure Management Systems Strategy

- The Task Team shall ensure that any new system development is consistent with the government direction of shared services, and common IT architecture.
- The Task Team will:
  - meet with line areas and stakeholders to identify and confirm existing systems, required systems and functionality
  - identify areas of system duplication and redundancies
  - consider the impact of the government's recent reorganization in developing its recommendations
  - establish and confirm IMS development and integration priorities
  - develop a general framework for a 5 year IMS strategic plan, and a common IT architecture.
- The Task Team shall report its findings by March 31, 2000.

MEMBERSHIP OF STRATEGY 3 SUB-COMMITTEE

Jay Ramotar (Chair)	Infrastructure
Gregg Hook	Infrastructure
Hoang Le (Larry Wilson)	Infrastructure
Alec Waters	Infrastructure
Archie Clark	Learning
Larry Pearson	Community Development
Anne Givens (Carolyn Adams)	Health and Wellness
Brian Colgan	Agriculture, Food and Rural Development
Bob Sharp	Environment

TASK GROUP - COMMON KEY PERFORMANCE MEASURES

Jay Ramotar (Chair)	Infrastructure
Gregg Hook	Infrastructure
Ray Reshke	Infrastructure
Hoang Le (Larry Wilson)	Infrastructure
Archie Clark	Learning
Larry Pearson	Community Development
Anne Givens (Carolyn Adams)	Health and Wellness
Brian Colgan	Agriculture, Food and Rural Development
Bob Sharp	Environment
Ken Ogata	Treasury

TASK GROUP – IMS STRATEGY

Larry James (Chair)	Infrastructure
Dave Frizell	Infrastructure
Rod Dushnicky	Infrastructure
Jane Stoeck	Infrastructure
David Bass	Infrastructure
Terry Bociurkiw	Infrastructure
Bonita Cheong	Infrastructure
Barry Day	Infrastructure
Al Philips	Infrastructure
Alan Wilde	Infrastructure
Tom O'Neill	Infrastructure
Habib Dhalla	Infrastructure
Althea Hutchinson	Infrastructure
Susan Prediger	Infrastructure
Bob Thomas	Infrastructure
Dennis Mitchell	Infrastructure
Phil Pao	Infrastructure
Bob Sharp	Environment
Arva Traynor	Agriculture, Food and Rural Development
Brian Colgan	Agriculture, Food and Rural Development
Larry Pearson	Community Development
Carolyn Adams	Health and Wellness
Kent Jenkins	Learning
Reiner Mahling	Innovation and Science
Don Squire	Municipal Affairs

Alternates

Neil Hindle	Infrastructure
Joe Boffa	Environment

Strategy 4

Physical Infrastructure Frameworks

Private Sector Provision
Alternate Uses and Divestitures

August 10, 1999

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1. INTRODUCTION

Purpose of Physical Infrastructure Framework

The sub-committee was directed to develop frameworks for Public-Private Partnerships and for Alternate Uses and Divestiture of Infrastructure, with the objectives of:

- Defining a process for these arrangements, and
- Specifying criteria when they should be considered.

Detailed terms of reference are included as Appendix 1.

Process

The sub-committee used the following process in developing the frameworks:

- Development of a workplan.
- Documentation of departments' experience relative to the frameworks.
- Review of relevant literature.
- Development and revision of the proposed frameworks.
- Presentation of the frameworks to the Working Committee for their review and comments.
- Presentation of the frameworks to a special meeting of the Accommodation Services Advisory Council (ASAC) that included additional program department representatives with responsibility for infrastructure.
- Review and acceptance of the final draft by the Working Committee.

Members of the committee are included as Appendix 2. A list of those invited to the ASAC meeting is included as Appendix 3. A summary of the literature review is included as Appendix 4.

Linkages with Other Committees

Where appropriate, references have been made to other sub-committees.

Next Steps

Recommended Next Steps are appended to each framework.

Incentives for Alternate Uses and Divestitures

Recommendations for incentives are appended to the Framework on Alternate Uses and Divestitures.

2. PRIVATE SECTOR PROVISION OF PHYSICAL INFRASTRUCTURE

Provincial Framework

Assumptions

Public-private sector arrangements for physical infrastructure needs may be an option where:

- They meet the physical infrastructure needs identified in business plans.
- They are financially sustainable by all participants over the life of the initiative.
- They can be done in an economical, efficient, and effective manner.

Applicability

- Owned and supported infrastructure.

Principles

- Value for money for the Province and a fair return on investment for the private sector over the life of the project.
- Appropriate and clearly understood sharing of risk.
- Any higher costs offset by other benefits.
- Financial obligations of the Province clearly defined and reported, taking into consideration whether the initiative is 'inside' or 'outside' the government.

Process Guidelines

1. Identification

- Identify potential projects.

2. Preliminary Option Analysis

- Consider the appropriate delivery mechanism (see Attachment 2.1).
- Assess service and financial risks.
- Consider implications of any new user fees.

3. Detailed Feasibility Analysis

- Determine whether there is any interest from the private sector.
- Complete a financial analysis, risk analysis, and evaluation of benefits. The financial analysis should identify the implicit cost of capital (see Attachment 2.2).
- Recommend the delivery mechanism to be used.
- Ensure that long-term financing arrangements comply with legislative and policy restrictions with regard to direct or indirect assumption of debt.
- Assess the need for enabling legislation or policy changes to allow the private sector arrangement to proceed.
- Determine how the private sector arrangement will be reported under the government's corporate accounting policies.

4. Approval Process

- Obtain approval for the proposed infrastructure project involving the private sector, in accordance with established authority levels.

5. Implementation

- Define and implement a process for selecting a private sector participant (see Attachment 2.3).
- Develop a comprehensive communications plan.
- Select a private sector partner based on an evaluation including financial analysis, risk analysis and benefits.
- Obtain approval to negotiate a contract.
- Negotiate a contract that clearly identifies accountabilities, responsibilities, performance standards, target dates, outputs, deliverables, financial terms and options for termination.
- Establish mechanisms:
  - to ensure that contractual terms and performance standards are met
  - for adjusting contractual terms and
  - for resolution of disputes.

6. Post-Implementation

Conduct a post-implementation review involving stakeholders to evaluate the arrangement.

Public-Private Delivery Mechanisms

Public-Private Delivery Mechanism	Examples	Opportunities	Limitations
Commercial Lease Accommodation is leased or contracted from a private sector partner. Under a lease arrangement, the public sector partner is responsible for operations.	❑ Lease of office space by Infrastructure. ❑ Lease of facility for Centre High by the Edmonton Public School Board.	❑ Lease costs may be less than costs of ownership under certain market conditions. ❑ Suitable if space requirements continue to change or requirements are insufficient to justify construction of a building.	❑ Not suited to highly specialized space or structures.
Contract Infrastructure Services Construction and maintenance of infrastructure is contracted to the private sector.	❑ Design and construction of highways is contracted to the private sector by Infrastructure. ❑ Property management of approximately 60% of owned public buildings is contracted to the private sector. ❑ Design and construction of buildings and major water resources infrastructure is contracted.	❑ This has proven to be a cost-effective delivery mechanism.	❑ In specialty areas, the private sector may need sufficient notice to develop expertise to meet public sector requirements.
Service Contract Under a service contract, the private sector partner is usually responsible for both provision of infrastructure and program operations.	❑ Contracts with private nursing homes by various health authorities. The private sector builds and operates the facility and also provides patient care. Per diem rates include a portion for infrastructure costs.		

Public-Private Delivery Mechanism	Examples	Opportunities	Limitations
Turnkey Arrangement A public agency contracts with a private developer to build a facility, in accordance with specified performance standards and criteria, for a fixed price. Financing and ownership of the facility can rest with either the public or private partner.	❑ Construction of health unit buildings in Sherwood Park and Grande Centre.		❑ Not suited to the traditional 'low-bid' procurement process. ❑ May need to be some risk-sharing.
Build/Operate/Transfer, Build/Transfer/Operate Under the Build-Operate-Transfer (BOT) model, the private partner builds a facility to specifications agreed to with the public agency. The private partner operates the facility for a specified time period under a contract with the public agency. In most cases, the private sector partner provides the capital financing for the facility. At the end of the contract period, the public partner can assume ownership and operating responsibility for the facility, renegotiate the contract with the original private partner or contract with a new partner. In the Build-Transfer-Operate (BTO) model the transfer to the public owner takes place at the time construction is complete.	❑ Toll roads in other jurisdictions. (BOT) ❑ Construction of Hamptons School in Calgary. (BTO) Initial construction costs were cost-shared with a private developer. Developer is to be reimbursed for developer's share of construction costs in 5 years, with no financing costs. Ownership and operating responsibility transferred to the Calgary Board of Education on completion of construction.		❑ Must be individually negotiated. ❑ Not subject to traditional 'low-bid' procurement.
Build-Lease-Purchase/Operating Lease The private sector partner builds a facility that it then leases to the public agency. At the end of the lease term, the property may be bought by the public agency at a fair market price. Under this arrangement, either the public agency or the private developer may operate the facility.	❑ Construction of ARC facility in Calgary by the private sector and is leased to Infrastructure. ❑ Construction of a community health centre in David Thompson Regional Health Authority.	❑ Enables a public agency to obtain a new facility without the need for capital investment. ❑ Private sector construction efficiencies can result in lower capital costs.	

Public-Private Delivery Mechanism	Examples	Opportunities	Limitations
Lease-Develop-Operate/Build-Develop-Operate/Lease-Maintain-Operate The private partner buys or leases a facility from a public agency, modernizes and/or expands it, and then operates the facility under contract with the public agency.	❑ Lease of Kananaskis Golf Course and Nakiska ski facility to a private operator. Facilities were built by the private sector but are owned by the Province.	❑ Public sector can realize cost savings of private sector operating efficiency. ❑ Suitable for properties that have a significant revenue opportunity.	❑ Commits the public sector to a long-term operating arrangement.
Sale/Leaseback A sale/leaseback is a financial arrangement in which the owner of a public sector facility sells it to a private sector partner, and subsequently leases it back from the new owner. The private sector partner finances expansion or upgrades and is repaid through lease payments.			❑ Involves divestiture of a publicly owned asset. This requires approval.
Design-Build-Finance-Operate A private sector developer designs and builds a new facility in accordance with output specifications set by the public sector partner or redevelops his existing facility to meet those specifications. The private sector partner provides the financing for the project and assumes responsibility for long-term facility ownership and operation under a contractual agreement with the public sector partner.	❑ Privately owned nursing homes. ❑ Residences and parkades at post-secondary institutions. ❑ Designation of historic sites.	❑ Suitable for properties that have a defined revenue opportunity. ❑ Strong incentive for the contractor to ensure that design, construction, and ongoing management combine to minimize costs.	

Public-Private Delivery Mechanism	Examples	Opportunities	Limitations
Joint Funding of Projects Private and public partners contribute capital funds to construct infrastructure. Ownership arrangements vary.	❑ Construction of some highway interchanges jointly funded by the Province, private sector, and municipality. ❑ Logging companies contributed to costs of strengthening bridges. ❑ Facility constructed in Grande Prairie that houses municipal government, health authority, school, and library.	❑ Suitable when there is a shared benefit from the infrastructure project.	
Donation of Infrastructure	❑ Costs of construction of some post-secondary facilities donated by private partners. ❑ Construction of a facility for outreach students donated by Lions Club under a joint-use arrangement.	❑ Suitable when there is a shared benefit from the infrastructure project.	
Joint Development of Projects	❑ Health facility in Calgary. Condominiums built by the private sector with publicly funded institutional care on the main floor. ❑ Calgary Regional Health Authority contributed 1/3 of the capital costs.		

Public-Private Delivery Mechanism	Examples	Opportunities	Limitations
Risk-Sharing Projects	❑ Energy savings contracts and modular furniture acquisitions whereby payment to the supplier is conditional on realization of cost-savings.		

Benefits and Types of Risks of Public-Private Partnerships

Benefits[7]

Public-private partnerships can:

- permit a creative approach to infrastructure using the combined strength and skills of the public and private sector;
- stimulate economic opportunities and encourage innovation;
- reduce project costs through cost effective project techniques;
- provide timely delivery of essential infrastructure in a time of restraint;
- enable sharing of risks;
- encourage more intensive use and multi-use of public infrastructure;
- provide flexible financing options and new sources of revenue;
- create a more constructive attitude of partnership in project delivery.

Types of Risks[8]

Listed below are some of the standard commercial and public policy risks that must be allocated among all partners in a public-private partnership:

- project financing
- force majeure
- workers' compensation
- demand, volume (usage)
- insurance
- design and construction approval
- commissioning
- environmental compliance
- tax compliance
- residual value
- strikes and lockouts
- legislative implications
- public safety issues
- public policy issues
- changes to user fees and tolls
- regulatory framework/competitive environment
- environmental standards
- impact on public sector employees
- tax policy

[7] Building Partnerships, Report of the Task Force on Public-Private Partnerships – Submitted to the Province of British Columbia, Canada – October, 1996.
[8] Ibid.

PROCESS FOR SELECTION OF A PRIVATE SECTOR PROVIDER

Following are elements of a process for selection of a private sector provider. Any process that is initiated must meet requirements of the Agreement on Internal Trade.

Determine whether to use a one or two stage selection process.

Stage One (Optional)

Expression of Interest (EOI)/Request for Information (RFI)/Request for Qualifications (RFQ) – Used to identify firms that meet requirements of the infrastructure project. No selection of a company is made from an EOI, RFI or RFQ but it can be used either to:

- develop a shortlist of firms that could be invited to propose on a specific project, or
- as a resource for selection of firms for a series of projects.

The process of shortlisting involves an evaluation of whether proponents meet mandatory requirements specified in the EOI/RFI/RFQ. In addition, some departments rate the qualifications of the proponents and select a predetermined number of firms that have the highest ratings to be invited to submit a proposal for a specific project.

Stage Two

Request for Proposals (RFP) – May be used after a shortlist is determined from an EOI/RFI/RFQ. An RFP can also be issued to all potential infrastructure providers without a shortlisting process. The information to be submitted in response to an RFP is extensive and a selection is normally made from the respondents to the RFP.

A one-stage RFP process can be considered when:

- The potential providers are known and there is a relatively small number.
- There is insufficient time to carry out a two-stage process.
- Selection criteria included in the RFP are specific enough that unsuitable providers will be unlikely to respond.

Both stages should meet the following requirements:

- State what is to be achieved.
- Specify in detail the information that must be submitted.
- State how compliance or qualifications will be measured.
- State how selection will be made based on the above measurements.
- The stated process should be followed precisely, and all respondents should be invited to review their own results.

Any changes to stated rules or conditions mid-stream opens the process up to confusion and criticism. This does not, however, preclude negotiation of specific terms during the contract negotiation process.

More detailed information on contracting practices and guidelines is included in "Recommendations of the Premier's Task Force on Construction Contracts", issued June 18, 1996.

3. ALTERNATE USES AND DIVESTITURES OF PHYSICAL INFRASTRUCTURE

Provincial Framework

Assumptions

- Owned and supported physical infrastructure should be effectively utilized.
- Where physical infrastructure is underutilized, alternate uses should be pursued. If alternate uses are not viable, divestiture, decommissioning, or demolition should be considered.
- Properties may be leased to the non-profit sector at less than fair market value if they pay their share of operating costs and grants-in-place of taxes, unless other arrangements are specifically approved.
- Properties should be sold to the private sector at estimated fair market value. Properties may be transferred to municipalities, health authorities, other governmental organizations or non-profit organizations at less than fair market value subject to approval.
- Where they do not already exist, incentives should be developed to encourage alternate uses and divestitures of infrastructure (see Section 3.3).

Applicability

- Owned and supported infrastructure.

Principles

- Information on alternate use and divestiture should be shared among Government departments, boards and agencies.
- Alternate uses and divestitures involving the private or non-profit sector should be done in a fair and open manner.

Criteria for Alternate Use or Divestiture

(a) Alternate Use of Facilities

- The property/structure is either underutilized or could be more efficiently utilized.
- There is no expectation of increased utilization in the immediate future.
- There are opportunities for use by the public, non-profit or private sectors.
- Partnerships will result in a net reduction of government cost by generating revenues or reducing costs. OR
- Partnerships are cost-neutral but have a positive service benefit for the owner.

(b) Divesting

- There is no long-term government use.
- Implications of closing a facility or structure have been resolved (e.g. bussing students to school, resolution of environmental issues).
- There is a market interest in acquiring the property or structure.

Process

1. Identification

- Identify opportunities for alternate use or divestiture by accessing a Government-wide inventory for physical infrastructure which includes information on utilization and occupancy.[9]

2. Assessment of Alternate Uses

- Identify alternate uses for the property or structure[10].
- Communicate availability of surplus physical infrastructure in the following sequence:
  i. Other provincial government departments, boards and agencies
  ii. Municipal and Federal governments
  iii. Private or non-profit sector (at estimated fair market value)
  iv. Non-profit sector (at less than fair market value)
- Evaluate costs involved in offering space or facilities compared to expected revenues.
- Advertise publicly to the private sector and select a user based on an evaluation of proposals.

3. Divestiture

- Where alternate uses do not exist, identify financial, economic, and service risks/benefits associated with divestiture, decommissioning, or demolition.
- Develop background information (see Section 3.2).
- Obtain approval of the proposed divestiture in accordance with established approval levels.

[9] The Infrastructure Information Management System (IMS) Committee (3A) will define criteria for 'effective' utilization.

[10] Types of alternate use and divestiture are included in Section 3.1.

4. Implementation

- For facilities that are to be offered for sale to the public, use established practices to divest, including an independent assessment of value, public advertising, and standard real estate practices.
- Consider budgetary provision and accounting treatment if the property is to be sold at less than net book value.

ALTERNATE USES AND DIVESTITURES

Type of Alternate Use/Divestitures	Examples
Sale of land, facilities or structures to the private sector	❑ Sale of housing units by Municipal Affairs. ❑ Sale of surplus lands acquired by Infrastructure for RDA purposes. ❑ Sale of parcels of land acquired for highway rights-of-way. ❑ Sale of Holy Cross Hospital.
Trade of land or facilities for other land or facilities.	❑ Universities, health authorities and others trade land to acquire needed properties.
Transfer of infrastructure to a municipality, board or agency.	❑ Transfer of some provincial parks to municipalities. ❑ Irrigation canals were built by the Province and transferred to irrigation districts. ❑ Transfer of airports to municipalities.
Leasing excess space in provincially owned facilities to other levels of government or the private sector.	❑ Provincial buildings are shared by government department, health authorities, and others. ❑ Schools lease space to day care operators.
Long-term lease of facility.	❑ Grande Cache correctional facility.
Condominium agreement ❑ Sell off a portion of building	❑ Fort McMurray Provincial Building.

INFORMATION SUPPORTING A DIVESTITURE

Checklist

- ❑ property description and condition
- ❑ photographs
- ❑ site plan
- ❑ highest and best use
- ❑ a financial analysis including capital and operating costs of feasible alternatives in net present value terms over relevant time frames
- ❑ estimated market value. This may be determined using one of several methodologies including: the income method based on existing use, net book value, or highest and best use. The appropriate method will depend on the property and market conditions and any caveats that are put on the sale.
- ❑ net book value
- ❑ original cost of property/buildings
- ❑ grants-in-place of taxes
- ❑ environmental issues
- ❑ local market assessment
- ❑ revenue generating potential
- ❑ costs involved in making a property saleable
- ❑ future development potential, and
- ❑ a heritage evaluation, if the property is over 50 years old.

RECOMMENDED INCENTIVES FOR ALTERNATE USE AND DIVESTITURES

Following are existing and proposed incentives for departments, boards and agencies to declare properties surplus, underutilized or suitable for alternate use:

Existing Incentives

Type of Infrastructure	Incentive for Alternate Use or Divestiture of Infrastructure
Owned buildings, schools, health care facilities, post-secondary institutions, primary highways, bridges, parks, owned Heritage structures, water systems, social housing	❑ Alberta Infrastructure and other departments, boards and agencies, that are responsible for repair and maintenance of owned infrastructure realize a benefit by reducing holding, operating and property management costs by divesting or sharing physical infrastructure.
Schools, health care facilities, post-secondary institutions	❑ School boards, post-secondary institutions and health authorities retain all or a portion of proceeds from the disposition of properties, which can then be applied to approved projects or to improve existing infrastructure. ❑ Revenues from lease of surplus space can be applied to reduce net operating costs. ❑ Grants to post-secondary institutions and schools are used for both operating and capital costs which creates an incentive to use capital efficiently.

Proposed Incentives

Type of Infrastructure	Incentive to Divest Infrastructure
Provincial Government departments occupying owned and leased space	❑ Departments that are able to reduce their space requirements could receive a benefit. (practical approach to sharing benefits needs to be established.) ❑ Performance measures could be developed to show effective use of space11. Achievement of more efficient utilization or inclusion of a divestiture plan in the business plan would be recognized. (e.g. performance contracts)
Structures where some or all of the maintenance and rehabilitation costs are funded directly by the Province (roads, bridges, irrigation works)	❑ Municipalities, boards, or agencies may agree to divest or decommission an underutilized structure such as a bridge or dam if they are provided with a compensating grant that could be applied to other infrastructure needs.

[11] Committee 3B is developing performance measures.

TERMS OF REFERENCE

PRIVATE SECTOR PROVISION OF PHYSICAL INFRASTRUCTURE

Strategy 4

Ensure effective, innovative management of physical infrastructure.

Target

4a Develop frameworks for assessing private sector provision of infrastructure.

Terms of Reference

Purpose

To develop corporate policy frameworks and guidelines that ministries can use in identifying, evaluating and, where appropriate, implementing public-private sector arrangements to provide physical infrastructure.

Objectives

In consultation with public sector stakeholders (private sector input would be sought during implementation):

1. Develop a corporate policy statement.
2. Define key objectives and principles for public-private sector arrangements.
3. Identify models of public-private sector arrangements in terms of:
   - key features;
   - actual and potential uses;
   - advantages/benefits; and
   - limitations.
4. Develop guidelines for identifying, assessing and implementing opportunities for public-private sector arrangements. The guidelines will include criteria which should be considered in assessing all public-private opportunities (including financial and risk assessment/sharing models).

Deliverable

By June 4, 1999, prepare a report outlining policy frameworks and guidelines for identifying, evaluating and, where appropriate, implementing public-private sector arrangements to provide physical infrastructure.

March 22, 1999

ALTERNATE USES AND DIVESTITURES

Strategy 4
Ensure effective innovative management of physical infrastructure.

Target
4b Develop frameworks for assessing divestitures and defining alternative uses.

Terms of Reference

Purpose
To develop corporate policy frameworks and guidelines that will enable ministries to share information to define processes and strategies for divestiture and alternative use of physical infrastructure including associated land.

Objectives
In consultation with public sector stakeholders (private sector input would be sought during implementation):

1. Develop a corporate policy statement.
2. Define key objectives and principles related to divestiture and alternative use of physical infrastructure.
3. Develop guidelines for identifying, assessing and implementing opportunities for divestiture and alternative use of physical infrastructure. The guidelines will include criteria which ministries should consider in evaluating all divestiture and alternative use opportunities (including financial and risk assessment/sharing models).
4. Recommend incentives to encourage departments to initiate action.

Deliverable
By June 4, 1999, prepare a report outlining policy frameworks and guidelines for divestiture and alternative use of physical infrastructure.

March 22, 1999

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LITERATURE REVIEW RELATED TO PRIVATE SECTOR PROVISION OF PHYSICAL INFRASTRUCTURE

Articles:

The "Buzz" About P3s (March 1999 Construction Economist)

Highlights

- Governments like the sound of P3s because they help to ease the burden of financing large capital projects.
- Those deals which involve the lease of a facility by the private sector are especially attractive to public sector organizations because they can defer debt from the capital spending side of the ledger to the operating side. However, restrictions in the Municipal Government Act in BC and similar statutes across Canada stipulate that a municipality cannot lease a facility beyond five years without that facility being considered a capital expense.
- Clearly, with the risks and rewards inherent in embarking on a P3 initiative come the responsibilities of ensuring that the initiative generates a satisfactory return to all parties in both the short and long run.
- It is the official policy of the BC government that P3s should first and foremost concern the public's interest and be able to withstand public scrutiny.

Canadian Provincial Experience:

Northwest Territories

Public-Private Partnerships - Examples

- Pursuing operating leases for a hospital ($32M), a college campus building ($9.5M), and married couple college residence ($4.5M), and two young offender facilities ($11M, combined).

New Brunswick

Public-Private Partnerships - General

- Generally based on build, own, and operate (maintenance, not program delivery). 25 year lease with an option to renew for an additional 10 years or to buy the facility.
- Building projects have ranged in value from $8M to $20M.

- One arrangement is for the construction of a new highway valued at $584M.
- Department of Environment has developed partnerships for solid waste transfer stations.
- Have recently developed guidelines and protocols for public-private partnerships in order to provide specific criteria against which all public-private partnerships will be measured and approved and will ensure the best interests of New Brunswickers are met.

Public-Private Partnerships - Examples

Fredericton North High School
- Built, financed, owned, and maintained by the private sector
- 25 year lease

Moncton North School
- Built, financed, and owned by the private sector

New Brunswick Youth Facility
- Designed, built, financed, and operated (facility operations only) by a private sector operator

Centracare Psychiatric Care Facility
- Designed, built, financed, and operated (facility operations only) by the private sector

Highway Development (Longs Creek to Moncton)
- Maritime Road Development Corporation will build ($584.4M), maintain, operate, and rehabilitate the four-lane highway.

Justice Facilities
- New Brunswick is currently working on a P3 for a new courthouse. Expected that the private sector will construct, finance, own, and maintain the facility.

Newfoundland

Public-Private Partnerships - Examples

Courthouse in Grand Falls

- Build-lease project
- Mortgage was eventually bought out by the Government
- Little more than provision of financing by the private sector; essentially a simple capital lease

Medical Clinics (3)

- Design, build, lease
- Litigation arose from the tendering process possibly because the bidders used different designs and the focus was on lowest price

Medical Facilities (2 or 3 valued at approximately $9M each - not yet constructed)

- Design done by Government but repaid by the developer
- Construction and ownership by the developer; major maintenance might be done by the developer
- Developer borrows funds from the Immigrant Investors' Fund for 5 years at approximately 5%. After 5 years, the developer must repay the Fund and seek private sector financing
- Approximately 30 year lease
- Government may specify the use of a capital renewal fund, i.e. a fund taken from lease payments to ensure the developer has capital available for major replacements and repairs
- The Federal Administrators of the Immigrant Investors' Fund want such leases to be operating leases as opposed to capital leases. This presents some challenges in terms of defining buy-outs, etc.

Australian Experience:

Contracting Out Financial Guidelines (Queensland)

- A document prepared by the Department of Treasury and Finance to provide guidance on the financial issues that may arise when considering contracting out proposals and to promote thorough financial analysis of those proposals.
- Detailed document discussing discounted cash flow analysis, the effects of inflation, discount rates, time periods, the whole of government perspective, types of costs, emerging liabilities, interest payments, depreciation, etc.

Executive Summary of New South Wales Economic Appraisal Document

- Proposes guidelines which are intended to be a framework within which Departments and Authorities can undertake economic appraisals on a consistent basis.
- An economic appraisal differs from a financial appraisal in that it considers a wider range of costs and benefits. Financial appraisal concentrates on benefits and costs accruing to the agency sponsoring the project, whereas economic appraisal considers wider effects, such as those accruing to other parts of the public sector, to private sector companies, or to individuals.

Infrastructure Investment Policy for Victoria, Australia

- The policy seeks to encourage increased private sector involvement through investment in both new and existing infrastructure and services.
- Project proposals may be initiated by the Government or by the private sector and will be assessed against the Government's economic and social objectives and against competing priorities.
- The Policy Statement outlines the structure within which the public sector will seek and develop project opportunities with the private sector.
- Once a Project Brief has been issued, private bidders may proceed in the knowledge that the project will be implemented, provided that proposals satisfy the specified conditions.
- The Policy sets out:
  - The Government's objectives in seeking private sector investment and the nature of its commitment to assisting this investment

- Principles for assessing the merits of proposals for private sector investment and examples of appropriate forms of investment
- The process to be adopted in developing infrastructure projects with the private sector
- Provisions to apply to intellectual property and confidentiality.

- The Policy applies to all projects including contracting out activities, with a total project value in excess of $10M, undertaken on behalf of the Victorian Government, including its agencies, and which involve private sector investment or financing.
- The Policy states that short-term State tax concessions may be considered in circumstances where the project produces substantial financial and economic benefits for the State and is likely to encourage further economic development.
- The document addresses risk sharing, project responsibility, government approval process, taxation, the bidding process, and includes contact names and phone numbers for each government department.

Infrastructure Management and Financing in New South Wales Volume 1: From Concept to Concept - Management of Infrastructure Projects

- This document attempts to chart the path of infrastructure projects from concept to execution.
- Some important steps that must be taken to encourage private sector participation:
  - The development of an integrated infrastructure development plan based on clear departmental plans which have been publicly discussed and enjoy a reasonable measure of public support.
  - Much better coordination between departments.
  - Development of best practice across departments.
  - An interagency group be organized to swap experience and develop best practice.
  - Development of coherent policies indicating the various forms of cooperation between the public and private sectors' acceptance to the government and the sorts of risks in broad terms the government would assume itself.
  - Departments should prepare shortened public versions of their capital works plans indicating projects which may be suitable for private investment but also containing a suitable disclaimer.

Infrastructure Management and Financing in New South Wales Volume 2: Public-Private Partnerships - Risk & Return in Infrastructure Financing

- It is clear that the public infrastructure needs of the community will only be met if there is substantial private sector investment.
- There is great public suspicion about private sector involvement in infrastructure deals with the Government, especially where financial risks are shared.
- The public expectation is that where private companies are involved, they should bear all the risk, but the reality is that very few private projects are viable without some Government support.
- Conflict between accounting principles sends the wrong signals to investors and the public, and indicates that accounting standards are in need of urgent review.
- Transparency is the key, and the Committee believes it is about time that public-private infrastructure projects are described without penalty for what they really are.
- Three important principles are:
  - There should be maximum transparency in all public-private sector deals.
  - There should be maximum competition in bidding for such deals.
  - Private participation in such deals should result in a new benefit to the public.
- Each party should, in general terms, bear the risk it is best able to and has the greatest control over.